1934

Teaching reading to the subnormal

Selma E. Herr

The University of Montana

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TEACHING READING

to

THE SONDIAL

by

Selma E. Herr

E.B.3. Northern State Teachers' College
Aberdeen, South Dakota, 1930

Presented in partial fulfillment of the requirement for the degree of Master of Arts.

State University of Montana

1934

Approved:

[Signature]

Chairman of Board of Examiners

[Signature]

Chairman of Committee on Graduate Study

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Selma E. Herr
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Part I. Introduction
Chapter One

The History of the Training of the Mental Defective

During ancient times the mental defective was regarded with indifference, contempt and aversion. A more tolerant attitude emerged and the imbecile became an object of diversion and amusement, particularly among the Romans.

The care for mentally defectives began in the Christian era. No effort was made to train or educate them but they were housed and clothed. During the period of the Renaissance and the Reformation, the practices of the ancient cruelties were brought back. Persecution followed close upon the steps of superstition.

At the close of the sixteenth century, the first institution for mental defectives was established in France by Saint Vincent de Paul. He merely furnished them a home. France was the birthplace of the new education, for we find in Paris at the close of the eighteenth century and the opening of the nineteenth, the first successful demonstration of the possibilities of educating the subnormal by physiological means with a philosophic aim.

Itard, a Frenchman (1775-1838), who was a physician in an institution for the deaf in Paris and a philosopher, was the first to undertake the systematic training of the low

---

grade mental defective, the savage of Veyron. This twelve year old boy was found in the forest in southern France by hunters in 1798. He walked on all fours; ate nuts and roots and was unenclothed and unable to speak. Through training, the boy learned to make relatively fine sensory discriminations, to recognize objects, to identify the letters of the alphabet, to read a little, to comprehend the meaning of many words, to apply names to objects, and to copy words from memory.

Sequin (1812-1880) was the pupil of Itard. He proposed to develop the imperfect sense organs of the defectives by exercising them. He aimed to lead the child from the education of the muscular system to that of the nervous system and the senses and from the education of the senses to general notions; from general notions to abstract thought; from abstract thought to morality. He believed that the child should be trained to move and feel as well as to cognize and moralize. In 1837, he established a school for mental defectives in Paris. This marks the real beginning of systematic rational training of mental defectives and has gone on without interruption to the present day.

In the sixteenth century, Felix Platter, of Basel, Switzerland, called attention to the pitiful conditions of the crotins in the valleys. In 1542, a house was organized at Interlaken. Sugenbuhl, a teacher, made an attempt at mental training. It was also discovered that these crotins, if transported to this higher altitude at an early age, began
immediately to improve physically.

Dr. Sequin came to America in 1850. In 1851, the first schools in the United States were established in Massachusetts and New York. By 1831, there were thirty-four such state institutions and the same number of private institutions. The American institutions were originally established as schools, as links of the public schools.

That the mental defective can be trained is a fact now generally accepted and acted upon. It would seem to be to the interest of the public that persons of low mentality, whether they are capable of supporting themselves, with or without supervision, should be taught in schools for such cases.

There are three types of schools. The first is one whose ideal is as near like the public school as possible. It has a kindergarten, a first, second, third and fourth grade of public school work. The three R's come into full recognition and beside these, geography, and history are given some attention. Manual training and hand work such as basketry, weaving, rug making, toy making and similar work is taught. Such children usually are very deft with their hands. The second school gives the manual training the chief emphasis and the three R's second place. These schools have extensive shops and children spend half time there. The third school maintains that intellectual work is practically useless and gives no time to the fundamental
subjects.

We also have the public schools trying to educate these backward children. Practically every administrator is confronted with the problem of adapting his school to the peculiar needs of a few children who can never successfully do the academic work of the public schools, unless they have a teacher who is capable of understanding the children and working with them. Even with the teacher who is especially trained it is sometimes impossible to have the child do successful work with the other children in the group. An opportunity room is valuable, but it is not practical unless the school is large. Children who are very backward should be admitted to the state school for defectives, but the school is small and the waiting list for admission is extremely long.

When no opportunity room is maintained in the school, the backward child is expected to do the work of the regular classroom as best he can. He is often ridiculed and embarrassed. Little advance can be expected in this field of public education as long as subnormal children of all levels of ability are indiscriminately assigned to the same class. It is a well known and lamentable fact that many school systems have made practically no progress in the scientific differentiation of their handicapped children.
Summary:

The mental defectives have been studied until at the present time, most states have a public institution to which they may be admitted. There are also private institutions in many of the states.

There are three types of schools. One type emphasizes the intellectual work and gives some training in manual training. The second school places its emphasis upon the manual training and gives some work in the three R's. The third school gives no attention to the three R's and gives training in industrial work.

The opportunity room does not always prove satisfactory but it is preferable to keeping the child in the regular class.
Chapter Two

Defining The Mental Defective

According to Loquin, Salton, Herbert, Thomas, and Hollingsworth, the fundamental difference between the normal and the mental defective is one of degree, amount or quantity and not one of kind. We have the same kinds of powers and capacities, but the defective is less richly endowed. They usually possess less judgment, less intelligence, less initiative, and less memory. The powers they possess are the same kind that we have but in smaller amounts. When we say that a twelve year old child has a five year old mentality, all we mean is that he is approximately on a par with a normal child of five. He may be inferior in some tests and superior in others. His mental processes do not necessarily function exactly as they do for the normal child of five years. The defective twelve year old child would not possess as much initiative, spontaneity, and potentiality for growth as the five year old child. The instinctive, emotional and psychological development of the child of twelve years should be more mature. The mental defective represents a condition of serious arrested neural development or damaged nervous tissues, affecting particularly the brain and especially the external layer of gray cells. As a general rule

2. Allin, op. cit. page 57

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the defectives are underdeveloped in strength, muscular
tonicity, weight and height. Psychologically, they repre-
sent a condition of mental non-development and arrest. The
deficiency dates from early life and it will always affect
the intelligence, judgment and understanding. Tredgold's
definition for mental defectives is:

"Mentia is the state of restricted potentiality for,
or arrest of, cerebral development in consequence of which
the person affected is incapable at maturity of so adapting
himself to his environment or to the requirements of the com-

3

munity as to maintain existence independently of external
support."

Coddard defines it as "a state of mental defect exist-
ing from birth or from an early age due to incomplete or ab-
normal development in consequence of which the person affected
is incapable of performing his duties as a member of society
in the position of life to which he is born."

Feebleminded persons are not merely dull or backward,
but are defective in mentality to such a degree that they
are incapable of receiving proper benefit from the instruc-
tion in the ordinary elementary public school.

The mentally defective child often astounds. His

3. Tredgold, Mental Deficiency.
   London, 1914, p. 51

   Chapter 4.
sensory organs are defective. The child is inattentive and depressed. He is not resourceful and has poor reasoning. Usually no child exhibits all these disabilities, but all dull or mentally retarded children show one or more of these elements of weakness.

Those who are destined to go through life with a sub-normal intelligence begin to show the fact at an early age.

Goddard gives the following causes for mental defectiveness:

The causes acting before birth are:

- Rhythitis..........................84
- Insanity..........................15
- Imbecility.........................4
- Epilepsy.........................3
- Intemperance......................13
- Syphilis.........................1
- Consanguinity....................5
- Accidents.........................15
- Pre-mature birth..................4
- Neuropathic.......................8
- Absence of thyroid................4
- Abortion.........................4

Goddard states that 68.2% of mental defectiveness is caused from heredity; 9% from probable heredity; 10.6% from neuropathic condition; 18.7% from accidents; and 2.4% from unknown causes.

A study was made in Vineland, New Jersey showing the offspring from groups of families according to the degree of defect in the parent. It shows that the percentage of

5. Goddard. loc. cit., page 495
6. Training school bulletin XVI, Vineland, N.J. Training School 1919
of defective children increases as the intellectual level of the parents becomes lower.

<table>
<thead>
<tr>
<th>Parents</th>
<th>Idiot</th>
<th>Moron</th>
<th>Normal</th>
<th>Psychopaths</th>
<th>Mentally Defective</th>
<th>Mentally Defective with Obstructive Palsy</th>
<th>Living</th>
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<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>4.5</td>
<td>1.1</td>
</tr>
<tr>
<td>One normal</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>6.4</td>
<td>0.6</td>
</tr>
<tr>
<td>One defective</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Total defective</td>
<td>13</td>
<td>0</td>
<td>9</td>
<td>11</td>
<td>2</td>
<td>5.5</td>
<td>1.5</td>
</tr>
<tr>
<td>One or both</td>
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<td>2.5</td>
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<tr>
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<td>9</td>
<td>18</td>
<td>1</td>
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<td>3.3</td>
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<td>0</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>4.3</td>
<td>1.2</td>
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The imbecile and the idiot never enter school but the moron, as a general rule, is admitted to the school.

Morons are defined by Tredgold as:

"persons in whose case there exists from birth or from an early age, mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, that they by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from instruction in ordinary schools."

7. Tredgold, op. cit., page 90.
The moron has the intelligence quotient of fifty to seventy. The borderline cases have I.'s from seventy to ninety. The low grade moron has the mental age of an eight year old child. He can do light housework, mend and similar work. The middle class morons make good routine workers, while the high grade morons have the mental age of eleven or twelve. They can learn to do fairly complicated work with little or no supervision.

Morons are often normal looking with few or no obvious stigmata of degeneration. The conversation is marked by poverty of thought or even silliness. About three percent of the school population, according to Allin, belongs to this class.

Tredgold states that in some parts of England, dull and backward children constitute five percent of the school population, in other parts it is twenty to fifteen percent. According to him, there are two classes of such children. First, we have those who are dull only in their school subjects, and second, those whose dullness extends to all mental faculties. In the first class, according to Tredgold, such dullness runs in families. Children of this class cannot or will not make progress in school studies, and yet play in the street and at home with keen intelligence. They

are not defective but only retarded in the development of certain of their mental faculties, a condition due to the humdrum manner of life of generations of ancestors. Instability to advance in school work is not necessarily an indication of mental defect. There are other children who are dull both in work and play; their stupidity provides everything that they do. Yet even these children are, according to Tredgold, not suffering from mental defect. The defect is not pathological but physiological. A thorough examination of the child for stigmata of degeneracy and abnormal nerve signals is important.

The idiot-savant is an interesting study. The unevenness of abilities which characterizes all persons in some degree is strikingly exemplified in the idiot-savants (wise idiots). Very rarely is a mentally defective child or adult found who shows some particularly rare ability to a remarkable extent. Tredgold tells us of an idiot-savant who could remember the day when every person had been buried in the parish for the last thirty-five years and could repeat with unvarying accuracy the name and age of the deceased and the mourners at the funeral. Outside of the line of burials, he had not one idea; he could not give an intelligible reply to a single question, nor be trusted to feed himself. Special talents of idiot-savants have usually consisted in ability
to draw, to perform feats in arithmetic, calculation, to memorize by rote or to play musical instruments.

There are certain types of mentally defective children which are fairly recognizable.

**Mongolism**: The children bear resemblance to the Mongolian race. They have oblique eyes and depressed bridges of the nose. The skull ascends very steeply from the back of the neck. The typical mongol seems to have an under-development of the bones in the region of the nose and the upper jaw so that the face has a pinched appearance and the lower jaw appears to be too big and to protrude laterally. The ears are usually small and seem crumpled. The hair is thin and sparse; the hands are square with short fingers; there are furrows on the palms of the hands. The eyes are often defective. The child is below weight and height. This type of child is difficult to touch. They usually have marked powers of mimicry. Their tongues are often exceptionally large and are usually transversely fissured and roughened by the enlargement of the papillae or surface roughening which one can see toward the back of the tongue. The skin of the hands and face is rough, thick and flabby in appearance. They are generally contented and happy. They are fond of music, especially the ton-tail or ragtime variety. Deformities such as knock-knee and flat-foot are often found in the Mongolian. They have low vitality. The cause of their condition is failure of development of the brain. The condition seems to result in an exhaustion of the reproductive powers of one or the other of the parents. The mongol is usually the last child of a large family or if the parents are of advanced age. There is usually only one such child in a family.

**Cretinism**: "Congenital hypothyroidism is a condition due to the absence of the thyroid gland. The skin is coarser than that of the normal child. The condition is due to the collection of a semi-fluid material just underneath the skin, which gives it a bloated appearance. The voice is harsh and nasal. The skin is rough and dry. The Cretin is stunted in growth. The face is old looking. The hands are broad and spade shaped. The fingers are short. The
nose is flattened and the lips are thick. The tongue is large and often protrudes. The child is placid, dull and slow in response. The administration of the extract of the thyroid gland if begun early and continued over a long period, usually effects a marked improvement in growth and appearance.

**Microcephaly:** "It generally affects several children in the family. The head is small. The skull is out of proportion to the face. It is probably due to a malformation of the brain caused by pressure joining together of the bones forming the skull, thus curbing the growth of the brain from attaining its normal growth. The skull measured round the maximum circumference will be found to be about seven to ten inches or less. The forehead part of the skull and the back portion are small and show little development. The scalp is often furrowed and the hair is coarse and wiry. The individual is usually small in stature. They are subject to violent and passionate outbursts. Some cases are very restless and quick in their movements. They are usually low grade and very inactive."

**Hydrocephalus:** It is due to an excessive formation of fluid on the brain. The pressure presses the bones of the skull outwards and compresses the substance of the brain against the interior of the skull, thus curbing its growth and nutrition. The individual has a high and bulging forehead. The head has a top heavy appearance. The face usually has a pinched expression. The skin of the scalp has prominent bluish veins. In very extreme cases the result is blindness, deafness, and partial paralysis of certain parts of the body. The individual is usually delicate, quiet, and affectionate. The course of the hydrocephalic is unpredictable. It may progress and end in death during childhood; it may become arrested spontaneously; or it may be treated successfully through surgical treatments. In some cases there is a degree of mental deficiency. Mild cases are occasionally seen in the classroom.

11. Young, op. cit., page 11-22
12. Young, op. cit., page 16-19
13. Young, op. cit., page 16-20

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Summary

Feeblemindedness is a state of mental deficiency. The defective is incapable of performing his duties as a member of society.

About sixty-six percent of feeblemindedness is due to heredity, thirteen percent to neuropathic conditions, sixteen percent to accidents and children's diseases and the remainder from unknown causes.

Psychologists agree that the only difference between the normal child and the mental defective is one of degree.

The disagreement between investigators and psychologists in regard to learning ability of defectives may be explained by the fact that sometimes the high grade moron or the borderline case is not included in every experiment.
Chapter III

PROVISIONS FOR PROPER EDUCATION

When a child is thought to be mentally deficient he is, by order of the court examined by two physicians, who give their opinion of his mentality, and if, in the opinion of the court, he is a fit child for the admission to an institution he is adjudged mentally incompetent and ordered admitted to an institution which cares for such children. However, the institutions have not room for all the applicants and each state has a long waiting list.

There are 450,000 pupils enrolled in the elementary grades that are mentally retarded to such a degree that they require special education to make the most of their possibilities. There is a realization that society will have to bear a heavy burden of misery, dependency, inefficiency and crime because of the failure of the schools to provide instruction for mentally handicapped children and that without state legislation most schools will make inadequate provision or none at all.

Fifteen states have enacted special laws designed to promote school education for these defective children.

The states are Alabama, 1917; California, 1921; Connecticut

out, 1921; Louisiana, 1922; Massachusetts, 1919; Minnesota, 1915; Illinois, 1917; New Jersey, 1911; New York, 1917; Oregon, 1927; Missouri, 1919; Pennsylvania, 1919; Utah, 1921; Wisconsin, 1917; Wyoming, 1919. Connecticut conducts a school on the petition of the parents of ten or more children. Massachusetts, New Jersey, New York and Pennsylvania have made such laws. It is also compulsory in Alabama, in cities of over 5,000, to maintain special classes for the backward child. Iowa authorized a survey by the state superintendent concerning the handicapped child and appropriated $3,000 therefore. Kansas created a commission to study the number and condition of handicapped children and disabled adults. The state appropriated $150,000.

In 1911, Ohio appointed a commission to revise, consolidate and suggest amendments to the statute laws of the state which pertain to children, with particular reference to the unification of the present law pertaining to illegitimate, defective, neglected, dependent and delinquent children and to their treatment, care, control, protection and reformation. New Hampshire by an act of its legislature, approved in 1913, appointed a children's commission to investigate all matters relating to the welfare of the dependent, defective and delinquent children of the state. Children's commissions were appointed in 1915 in Missouri, Minnesota and Illinois for the purpose of revising, amending, and modifying the laws of those states relating to children.

To John H. Wallin, The Problem of the Abnormal Child.
The Society for the Study of the Exceptional Child in Montana completed a state survey in June, 1934.

Questionnaires were sent to superintendents of schools of the state asking how many defective children were enrolled in their schools and what measures were being taken to improve their condition.

The number enrolled in state institutions increased from 23,982 in 1914 to 497,140 in 1927. The private institutions had an increase of 164% in that time. There were 916 enrolled in 1914 and 2,419 in 1927. These increases in enrollment which are far greater than the increases in population do not indicate that the percentage of the mental defectives is on the increase. It means that we are taking better care of the unfortunates. Statistics show that there are 45,000,000 children. Out of these 450,000 are mentally retarded. In the field of the deficient and handicapped children, advancing knowledge and care can transfer them more and more to the happy lot of normal children.

State care of the mentally defective child has not only resulted in bettering conditions of these children but has also shown that mental deficiency is one of the basic causes underlying many social problems; nearly all social evils, such as pauperism, crime, sex delinquency, unemployment and the like have some roots in the feeblemindedness, so that today we must provide suitable care for these persons, not

only for their own sake but also to protect the very foundations of society.

The rate of the mental patients for each 100,000 of the combined population of thirty states rose from 218.5 in 1920 to 226.9 in 1930. In New York it rose from 365.3 to 383.1 per 100,000 population. The increase in institutions was even greater. There was an increase of 47 to 54.9 per 100,000. It costs annually $400,000,000 to educate these children of the United States for future usefulness. Ten per cent of this is used to reteach. One third of the children are retarded in their work. Fifty per cent of these children do not complete the fifth or sixth grades. The real reason that the child does not stay in school is not poverty but the child's indifference to the kind of work he is given. If the child is given an opportunity to learn in a group of his own kind, there seems to be a greater amount of growth in his learning. The special classes in the public schools were established originally in the United States for the mentally unusual children who were disciplinary incorrigible and truant boys. Such classes were organized in New York in 1874. In Cleveland there were two classes established in 1879 and in Providence in 1894. A school for backward children was established on November 30, 1896, which

18. Training School Bulletin, Oct. 31, page 113
19. Wallin. op. cit., page 38

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aimed to supply the needed care and methods of teaching fitted to mentally deficient children. This was the first public school class in America, which was specifically established for the training of mentally defective children.

It is most obvious, but it has been overlooked until recently, that not all the mental defectives need institutional care nor would it be possible to provide for it because of financing. The defectives who need institutional care are usually behavior or anti-social problem cases or results of environmental circumstances. Subnormals are not very different from normal persons except in degree. They are not equal to competition with normals and, therefore, it is highly important that they be recognized early and that proper methods be promptly adopted that the child may correct bad habits and anti-social traits. The earlier these attempts are made, the more likely that there will be success.

Early training does greatly affect and improve the anti-social behavior of the institutional type of defectives. The defectives must be guided by judgment and training in their earliest childhood.

It is very easy to say that a child should be in a special class when one is thinking of an individual child who needs help. But whether the class that is available can give the kind of help that is needed is an equally important consideration. It is true that when the group is small, as
it is in special classes, the actual teaching may be more or less individual; but for children who need this special kind of training, it is also true that the social value arising out of this group activity is of at least equal importance with the acquisition of academic fundamentals. This is impossible when the children vary too widely in age, ability and interest. One reason why these children fail in ordinary classes is because of their feeling of isolation from the rest of the group. If they are placed in a special class that is too heterogeneous, they will not only feel the same isolation within the group, but the added isolation of being segregated from the rest of the school. It seems necessary, if special classes for children seriously retarded in mental development are to be maintained, that the various problems involved be recognized more explicitly and the function of the classes better defined.

The New York Department of Education suggests that special classes should be organized with the following ideas in mind; usually children with a mental age under five should be in a special class. Usually children of six or seven years, whose mental age is under four, can be taken care of in the kindergarten for a year or two longer. Older children with the mental ages under five are too defective to profit by public school work and are of too low a grade of intelligence to be justifiably placed with children who

are able to make a limited adjustment to school. Children
with mental ages over ten are ordinarily capable of doing
more school work than most special classes can give. They
are in need of more definite training along vocational lines
than can be given in special classes. They can be more eco-
nomically cared for in larger groups than the typical special
class. It is true that they may be three years retarded men-
tally on the basis of their chronological age but for children
over thirteen years of age, the chronological age is an un-
certain criterion. Here is another type of child who pre-
sents a serious school problem. Some children not far from
normal in mental ability and others perhaps dull, are unable
to do school work successfully because of an emotional in-
stability or other psychopathic trait. Their presence in a
special class of subnormal children only complicates the
problem. They need a different educational treatment from
that given to the subnormal child.

One of the main possibilities of the special class is
the training it can give in the way of establishing proper
attitudes toward work and proper habits of industry, and
in building up the morale of children who have failed by
giving them tangible evidences of success. Another im-
portant achievement of the special classes, is the improve-
ment of personal habits—the establishment of habits of clean-
liness, orderliness, courtesy, appreciation of the rights of
others, and so on. The special classes should be a means of
aiding in the adjustment of children who can profit to a very limited extent by ordinary school work, but who are usually able to maintain themselves independently in the community, when they leave school.

The writer sent the following questionnaire to the State Superintendents in March 1932.

1. How many city boards of education have made provisions for maintaining special classes for backward children?

2. Does the board define the children for special training?

3. Does the state law make provision for special classes?

4. Does the state provide a supervisor or director?

5. Does the state superintendent approve the qualifications of the special teachers?

6. Is state aid given to these special classes and what amount?

7. Is the State Board of Education responsible for the general care of these classes?

8. How many cities have special classes? -states if possible.

9. How many children are enrolled in special classes?

10. Is there a state institution?

All the state superintendents of public instruction replied. The following table shows what provisions are being made by the states to care for the backward children. It will be noted that most of the states give training to their defectives.
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**Note:** The table above contains data for a specific scenario. The columns and rows represent different variables or conditions, and the cells indicate the presence or absence of certain states or values. The exact interpretation of the data would depend on the context in which this table is used.
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Eldridge, California
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Conn. Colony for Epileptics
Hansfield, Connecticut

Conn. Training School for the Feeble-minded
Lakeville, Conn.
972

State Sanitarium
Hampa, Idaho
443

Lincoln State School & Colony
Lincoln, Illinois

Dixon State Colony For Epileptics
Dixon, Illinois
5442

Indiana School for Feeble-minded
Port Carne, Indiana
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Indiana Village for Epileptics
Newcastle, Indiana

Iowa Institution for Feebleminded Children
Glenwood, Iowa
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State Hospital and Colony for Epileptics
Woodward, Iowa

State Home for Feebleminded
Winfield, Kansas
1006

State Hospital for Epileptics
Parsons, Kansas

Don. Institution for Feebleminded Children
Frankfort, Kentucky
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Maine School for Feebleminded
West 1024, Maine
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Southern Wisconsin Home for the Feebleminded
Union Grove, Wisconsin

Wisconsin Home for Feeble-minded
Chippewa Falls, Wisconsin

Wyoming School for Defectives
Lander, Wyoming
Number of first admissions to institutions for F.M. per 100,000 population of same color, nativity and age for U.S., 1930

This graph indicates the ages at which the patients are admitted to the state institutions. The greatest number of admissions is at the age of ten. This is due, largely to the fact, that the child has been in public school attendance and the school authorities have been influential to a large extent in having the child admitted to an institution.

The figures for the graph were taken from the U.S. Census report and the state institution enrollments.
The cities with special classes are:

**Arizona:** Phoenix

**California:** Fresno, Long Beach, Oakland, San Diego, San Francisco, Glendale, Los Angeles

**Colorado:** Denver, Greeley

**Connecticut:** Hartford, New Haven, Rockville, Torrington, Meriden, New Britain, Waterbury

**D.C.:** Washington

**Florida:** Miami

**Georgia:** Atlanta

**Illinois:** Canton, Chicago, Decatur, Oak Park, Peoria, Rockford

**Iowa:** Des Moines, Iowa City, Cedar Rapids, Waterloo, Marshalltown, Davenport

**Kansas:** Arkansas City, Topeka, Lawrence, Wichita

**Kentucky:** Louisville

**Louisiana:** New Orleans

**Maine:** Portland

**Maryland:** Baltimore

**Massachusetts:** Boston, Brockton, Danvers, Fitchburg, Greenfield

**Michigan:** Battle Creek, Calumet, Detroit, Salina, Sault Ste. Marie

**Minnesota:** Austin, Albert Lea, Duluth, Crookston, Minneapolis, St. Paul, St. Cloud, Winona, Fairbault

**Missouri:** St. Louis

**Montana:** Butte, Great Falls

**New Hampshire:** Concord

**Indiana:** Evansville, Indianapolis, Richmond, South Bend
Nebraska:  Lincoln, Omaha
North Carolina:  Charlotte
Ohio:  Columbus
Oregon:  Portland, Salem
South Dakota:  Sioux Falls, Aberdeen
Texas:  Dallas, Houston
Utah:  Salt Lake City
Washington:  Bellingham, Everett, Seattle, Spokane
West Virginia:  Morgantown, Wheeling
Wisconsin:  Milwaukee, Racine, Madison
Wyoming:  Cheyenne, Sheridan, Laramie, Wheatland, Casper

Twenty years ago the problem of the mental defective was not considered pressing. Today it is presented to us in various forms and in such a manner that we realize the necessity of caring for the defectives. Before we had compulsory education the dull child dropped out of school or else never began to attend. Now we are forcing a large number of children to attend the school who find it difficult, if not impossible, to do the work in the regular course. Special classes in the school help these children to advance further in their education. The first method adopted was to give the dull child in the special classes extra drill so as to make them come up to grade, if possible. If they could not be brought up to grade, they were taught the portions of the regular curriculum that they could grasp. The opportunity class is now designed to teach the child the things that he can learn and
which will best prepare him to take his place in the social and economic world. The subjects included in such a program are training in cleanliness, vocational and industrial training, gardening and some academic work and speech training. Since a large part of the course should be to fit him into a social order, this means that he must acquire the control of impulses which might make him a nuisance. Too often a dull child is permitted to acquire pernicious attitudes or habits which he finds difficult to break down at a later date. It is just as difficult for a mental defective to break down a habit as it is for him to learn it in the first place.

Subnormals, because of this, should be placed under the right kind of instruction as soon as the learning process begins. Mental defectives are notably impressionable and easily influenced. That is the reason that they fail in poor environment and cause little or no trouble in good environment. They reflect in their behavior the kind of environment in which they find themselves.

The reasons for establishing special classes for the backward children are that the institutions have shown the successfulness of such classes and that it is desirable to have these children in classes apart from the normal children. 22 With the enactment of school and attendance laws these children must be in school and it is far better for them to be in their homes if the cases are not too severe, than to be in an

22. Wallin, op. cit., - 31
institution. Many such children are not institutional cases.

Many subnormal children require three or four times as much attention as normal children.

It seems unfair to the normal child to devote an undue amount of time to the backward child and therefore it is far better that the backward child be placed in a special class. The defective child is stimulated by his modest successes when he is with other children of his type instead of being discouraged by the brilliant successes of pupils with whom he can never compete. In special classes the defective children receive aid and encouragement from specially trained and sympathetic teachers, who understand their limitations and take a personal interest in each child. The child receives training in what appeals to him and in which he can achieve a considerable measure of success. Nearly all subnormal children respond quickly, both in scholarship and conduct, under the helpful and sympathetic atmosphere of the special class regime.

The first report of the trustees of the New York asylum at Syracuse sets forth the aims and limitations of training very well:

"We do not propose to create or supply faculties absolutely wanting; nor to bring all grades of idiocy to the same standard of development and discipline; nor to make them all capable of sustaining creditably all the relations of a social and moral life; but rather to give to the dormant faculties the greatest possible development, and to apply those awakened faculties to a useful purpose under the control of an aroused and disciplined will. At the base of all our efforts lies the principle that none of the faculty is absolutely
wanting, but dormant, undeveloped and imperfect.”

In some school systems there is a rule that pupils who have been two years in the same grade must move on to the next higher grade, no matter whether they can do the higher grade work or not. Sometimes this method works beneficially, as with the progress of maturing the mind of the child wakes up to its higher responsibility. In other schools the opposite method is followed. Children who must remain in the same grade as long as five years, are forced to do the same grind over and over again until they become tired of it or go to sleep mentally and consequently become either obstreperous or absolutely unresponsive to anything. For pupils of this type, the ungraded classes can sometimes do much good, provided it does not stigmatize them as defectives and does not in that manner deprive them of the incentive of self esteem. The special class should abandon the course of study and adapt itself to the needs of the different types of children.

In Detroit, all children entering the first grade of the public schools are given a group intelligence test and on the basis of this test, they are tentatively classified for purposes of instruction into three groups known as X, Y and Z. Twelve per cent that test highest are placed in group X, the next 60% in Y and the lowest 20% in group Z. The teachers are instructed to shift pupils from one group to another just
as soon as they find they are not properly classified.
Pupils in the group who are not able to do the work of
that group are given an individual psychological examination
and placed in special classes, provided the psychological
test confirms the judgment of the teacher. By this method
the mentally retarded child is put into the special class
before he has become discouraged thru repeated failure. But
it may be suggested that in taking children from the first
grade we are bound to make mistakes and get into our special
classes some that do not belong there. But even in that event
no injustice is done the child for while he is in the special
class he is taught by a teacher who is equal in ability to
the regular grade teacher. Such a pupil is returned to the
class as soon as the special class teacher discovers that he
does not belong to the group. Their aim in the education of t
the special class child is to make him a law abiding member
of society and to enable him to become wholly or partially
self supporting through engaging in unskilled labor. The
folly of attempting to make skilled laborers out of this type
of individual, when 20% of the normal population gainfully
employed are engaged in unskilled labor, is self-evident.
By continuing to select from the first grade those pupils who
are falling in their work and stand lowest in intelligence,
and by putting them into special classes where they are taught
by experienced teachers who have had special training in the
Association or the Study of Defectives.
teaching and study of exceptional children, it would be possible to pick out 80 or 90 percent of the children, who, because of inferior intelligence combined with emotional instability accentuated by adverse home conditions, are likely to become a menace to society. The children who are most in need of institutional treatment are selected while they are still young enough for the institution to do something with them. On the other hand, many children who have been sent to the institutions for feebleminded and now paroled, might have remained at home and been educated in the public schools provided they had been put into the special class from the beginning of their school life.

With the mentally retarded child, the habits he forms determine his future to a much greater extent than does the knowledge he acquires while in school. Through the formation of right habits, he may do what is right and refrain from doing what is wrong.
Summary:

Hallin's statement that three and one-half of the school population is mentally defective, would mean that there are 4,500,000 feebleminded in the United States. However, the degree of subnormality was not stated and he may have referred to borderline cases as well as the idiot, the imbecile and the moron.

A greater interest is being shown in the caring for and educating the backward child. In city schools the number of classes has increased 376 percent since 1914. This shows the tremendous increase that has been made in the field of training mental defectives.

The problem of the mentally retarded child touches many different agencies and its solution must be a cooperative enterprise involving the courts, the schools, the state and private institutions for the feebleminded, and all social organizations.
CHAPTER IV

TEACHING THE DELINQUENT AS VARYED BY AUTHORITIES

Of the children who enter the first grade of the American public schools annually at the approximate age of six, one third to one fourth find it impossible to master the curriculum content of that year. The mental capacity is not the only difference in these persons. They are different temperamentally in such a way as to make some of them problem cases.

The backward pupil needs not a different mental stimulent, but much drill in various forms. Addington Bruce states that we do not question the ability of a child to learn to read; he assumes that the child is backward, but it is necessary to find in what particular mental functioning he is strong; and in what he is weak. The backward child is often a baffling personality. His is the most difficult school problem. Ordinary school methods, so lacking in individual adjustment, may explain, in part, the vast amount of retardation which exists. In this country there are between six and seven million school children who are a year or more behind grade.

Laziness is a much abused term especially applied to children. They are not naturally lazy, neither do they acquire these habits early in life. Laziness is used by teachers and parents to explain a lack of inclination on the part

25. Addington Bruce, Handicaps of Childhood. New York, 1938 (p. 5-7; 9-13; 18-25; 51-53)
of the child to participate in tasks or activities of any kind that require physical or mental effort. This attitude toward the child's inactivity assumes that this indifference on his part is voluntary, something which he wills to be or at least, that it is a state of mind whether he wills it or not. Frequently he is sick without anyone recognizing the fact. Disturbances of the glands of internal secretion bring about changes of behavior which are often construed as laziness. Teachers mistake poor mental equipment for laziness.

The emotions of the child must always be taken into consideration in the attempt to explain laziness. There are environmental situations that affect the mental process. The child who feels inadequate because of constant or unjust criticism may take on a dull indifferent attitude toward home and school. One teacher may bring out the best, and another may have just the opposite effect, causing the child to become shy, sullen, repressed or indifferent. Nothing is gained by force, punishment, nagging or humiliation.

Authorities agree that children may be dull through lack of vitality and nervous energy due to disease. Defects of the eye, ear, or of speech organs may be responsible for the child's dullness. Chronically underfed children are more vulnerable to contagious diseases and more susceptible to colds and bronchitis. Malnutrition does not cause mental deficiency, but it does result, at times, in a mental retardation closely
resembling the actual state of defect. Such children do not have the strength to show interest in their studies and falter and fumble at their tasks. The child is usually backward, forgetful, unhappy, over-sensitive and unreasonable in both his likes and dislikes.

The dullard is generally put into the large class. He may be given the lowest teacher. He is allowed to struggle on as best he can. The attitude of the community usually has been one of social ostracism. The mental defective cannot compete on equal terms with normal persons but there is a place for him in our economic system if adjustments are made to individual differences. We so often give the defective the impression that he is culpable because he is not brilliant. If we came to give him this impression we shall enjoy better relations with him.

"Kindness is the key that unlocks the problem of the defective. The defective must have a permanent guide, philosopher and friend. Mental defectives cannot manage for themselves. We must give them justice and a fair chance to bring out the best that is within them."

The child is kept happy if he is kept busy with work which he finds agreeable. He forms a happy attitude toward his work if it is presented in an interesting manner, when he feels the need and readiness of doing the work. The teacher should be an earnest worker, and she must be clever.

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enough to translate the educational process into the performance of appealing and worthwhile tasks. That will stimulate whole-hearted and honest participation on the part of the child. The child is slow, backward, listless, inattentive and easily fatigued because regular studies do not appeal to him.

Educators have come to some conception of the tremendous importance of the early establishment of the desirable habits in the mental defective and of the difficulty of breaking such in the adult individual. They have learned something of the role of learning in these children so that there is less discouragement by the parents. At times, incredibly slow progress, the parents have come to know that certain types of projects which may be worked out by them give the joy and satisfaction of accomplishment.

Collin, Young and other authorities state that there is no unique technique necessary for training them. They can learn the same things other children learn, up to the limits of their capacities. However, the defective learns more slowly. Then teaching mental defectives, the problem of the immaturity of their mentality is complicated by the fact that their bodies far outgrow their mentality.

"Attention is the most difficult thing of all to train, and yet no education can hope to be at all effective unless this faculty is evolved up to a certain points." 27

27. Young, op. cit., page 76
Young states that we have two types of inattentive children. The first type is too restless and flighty to apply himself to anything. He is extremely excitable. The second type is the child who may be disinterested in anything. It is necessary to draw on the child's experience, to have a wealth of teaching materials and to encourage the child for his small successes. The courses of study must deal with topics which are at a chronological age level of the dull pupils, but written at a degree of difficulty which fits their mental age. The subject matter must be expressed by methods which are suited to the capacity of the backward child.

Inattention is often due to the maladjusted curriculum. The reasons for training the mentally deficient in special ungraded schools or classes are: The normal pupils are removed from the subnormals. Many subnormals require three or four times as much attention as a normal child. If the subnormal is given the attention he needs, the normal is neglected. The deficiencies are relieved of the chief source of their past discouragements. They receive more aid and encouragement. The teacher is trained for the work. They have an adjusted curriculum. Special training should be provided as soon as the child's condition can be determined.

Subnormals learn to reason through concrete instances;
They comprehend subject matter within their experiences; they concentrate only on materials that have interest to them. The teacher must build on what nature has given the individual. Subnormals have little initiative; they lack confidence or else they are blatantly over-confident. Their minds are easily cluttered up. The teacher must make them feel the need of knowing. Texts are not written for the dull and retarded. It is often better to use a different text or no text at all than to give the child the sense of failure that comes when he knows that he either fails to comprehend or must pass over parts of the regular text because the subject matter is too difficult.

"With retarded children, it is not a question of emphasizing the three Rs but of laying stress on the three Rs, hand, heart, and head; a trained hand guided by a thinking head, and controlled by disciplined emotions. His interest span is short, his voluntary attention is scattering, and he cannot concentrate. The teacher must use methods that will take into account the disabilities of the retarded mind. The interests of the child must be roused, he must feel the need of knowing something. In the joy of this interest, attention and concentration will develop. If the teacher follows up the interest cues, a learning situation arises that will enable the child to approach success." 29

The teacher of special classes should have originality, sprightliness of ideas and a live interest in social

29. Anna S. Hocken, Teaching dull and retarded children
New York, 1928. P. 11
Problems. Intelligence is imperative for she should make her own course of study, a different one for each pupil. She should have training in psychology and pedagogy of mental deficiency. She should appreciate and understand the emotional life of the child as well as the intellectual life. She should be an advisor and a counselor rather than a dictator.

The teacher must learn to know that the elusive thing called personality is found in as many combinations below an I.Q. of 70 as above it. She must come to realize that there is an interrelation of personality and environment perhaps even more imperative with mental defectives than with the so-called normal persons, which is only to say that the adjustment of the defective is a case work job.

"It is necessary that teachers specializing with unusual types have a broad and thorough knowledge of educational principles and methods in general, such as are used with ordinary children. A teacher must be resourceful and in full command of his stock in trade. He must be able to rearrange and readjust his methods and principles instantaneously so as to fit an individual case at a given notice. Generally speaking the objective and creative methods are most effective. Emphasis must be on experience, not on book learning. It is a common error in dealing with children to take too much for granted. Word knowledge and memory are confused with a knowledge of things, and realities, also with judgment. Each child must be taken at his own terms. The school environment must be so organized as to permit quick adaptation to changing needs, to the mental caliber and gait of the individual."30

30. Grossman, op. cit., P. 508
The teacher of the defective child must realize that mental ills are not normal weaknesses to be cured by platitudes and discipline. She will hold herself more responsible for the training in character than for any other obligation laid upon her. The teacher must be the mother to them, actuated by sympathy, however she must guard against the tendency to become morbidly sympathetic.

"Education has a fivefold object: 1. It should develop and cultivate all the latent potentialities of body and mind to their fullest extent. 2. It should repress or eliminate vices and faulty modes of action. 3. It should supply, if possible, such particular instruction as will fit the individual for some useful form of work.

The general principles of education do not differ from those in the cases of the mentally normal, the difference being merely one of method and application. The whole object of the teacher is to reduce the environment of the child to a form which the deficiency of his mind is capable of assimilating, at the same time taking care that his mental food is administered in an attractive shape. "Success will be attained unless the child's interest is aroused. It is by this interest and progressive expansion by gradually leading him step by step from one acquirement to another, that the capacity of the child is unfolded and his education accomplished. It is necessary to pay particular attention to the cultivation of sensory and motor functions. In the ordinary child these are perfected as the result of his own initiative, but in the average special stimulation is required. In a considerable proportion of those children there are defects and irregularities of nerve action which must be corrected before manual work can be accomplished but because such training affords a most valuable means of developing and co-ordinating intellectual activity. School training consists of systematized methods, having for their objects the development of sensory, motor, intellectual and moral faculties of the child."

51. [Footnote] [Footnote]}
Summary

The capacities of the subnormal are like those of the normal, but less in quantity. The subnormal can be expected to follow the same path of learning as the normal child only at a much slower rate and only to the limit of his capacity. The backward individual finds it much easier to learn if the subject matter is presented to him in an activity program. He finds it more difficult to concentrate than the normal pupil. The defective child needs a patient and sympathetic teacher.

The mentally deficient should be in a special ungraded school or class because it is unfair to the normal child to give the time he rightfully deserves to the backward. The child is also far happier when he finds himself in a group where he can succeed.
PART II

To understand the role of the teacher in school system, it is essential to analyze the factors that result in the teacher's role. The teacher's role is important in the educational process of children. The teacher's effectiveness in teaching is determined by various factors, including the teacher's qualification, experience, and personality. The teacher's role is not only limited to teaching, but it also involves counseling and motivating students. The teacher's role is crucial in shaping the personality of children.
The Problem

In this study the author will attempt to show:

1. The procedures used at the State Training School, at Boulder, Montana, in teaching reading to the mentally deficient children.

2. Progress of Subnormals and Backward Children in Reading by Using Diversified Methods.

3. The correction of speech defects.

4. The provisions made for the care of the subnormals in the United States.

5. The progress made by the pupils in the State Training School from September 1931 to June 1932.

Method of Attack

1. In the beginning of the attack on this problem, questionnaires were sent to all State Superintendents to ascertain what provisions were made in the public school.

2. Personal letters were written to State Institutions for Defectives asking for descriptions of their educational courses.

3. A group of fifteen were taken in the institution at Boulder, Montana, for the experiment. These were in about the last half of the first grade and had been taught by the author the previous year.

4. It was planned to test this experimental group at the
opening of the year, to preserve records, to enrich
teaching with methods, devices and activities which
the writer could use in teaching reading to this group.

5. To test the progress made at the end of the year and to
draw individual graphs of each pupil.

6. To compare this progress with the standards for normal children. No control group of subnormal children could be obtained.
CHAPTER V.

TESTING, PLACEMENT AND ACHIEVEMENT OF SUBNORMALS

The I.Q. serves a very useful purpose in indicating to the teacher and the administrator, the probably intelligence of the pupil and it forecasts to a large extent, his school attainment. However, it cannot be used for purposes of classification without also taking into consideration the actual mental age and the chronological age of the child.

In teaching subnormal children, one must consider that as long as it takes these children two or three times that of the normal child to cover a grade. Therefore, one must cut all non-essentials from the program and every minute the child is in the classroom must be utilized for some practical purpose.

All children are given the Binet test upon entrance to the institution at Boulder, Montana. They are retested every other year. In some instances a child is tested oftener. The teacher may feel that he has not done as well in the test and has not been placed correctly or in cases of his becoming epileptic, his mentality frequently lowers very rapidly and in some cases, he must be taken out of school. Any placement in the classroom is not final, however, the teacher watches him, daily, both with regard to his work and his social adjustment.

Sometimes in the State Training School he did not adjust himself to his group. Often he was unable to get along
peacefully with some of his classmates. In this case it often was better to enroll him in a different class. It was necessary to change some children four times before they finally found their niches in the school.

Unless the child has been admitted after he has attended the public school and received at least first grade training, he is placed in the kindergarten. The Montessori method was used in the kindergarten. It is the sense training department. It is composed of morons and imbeciles capable of training beyond that offered in sense training. The sense training or habit training classes consist in training sense perception, motor control and social training suitable to the child's simple environment. It usually takes the imbecile about three years to cover this work. The moron is able to perform the duties in one year. The teaching of health habits is stressed. Some of the materials used in the Montessori method were: colors, learning to button and lace, work with clay, learning differences in weight and length, fitting pegs into holes, fitting boxes into each other, and wooden tables, blocks, and geometric insets. Names of objects were printed on oak-tag and tacked on the object. The children soon learned that these words were. They were occasionally tested on these. The names were removed from the objects. They were given a set of typewritten words, together with
pictures of the objects. These were matched. After enough time had been given to this, the names were again placed on the objects and the child was allowed to find how many he knew. He was never discouraged by being told how many his neighbor had correct. Rather the teacher said "That is very good, George. You had one more correct than last time and let us see if we cannot beat this record next time."

In kindergarten work, the teacher instills in the child a joy in school work, a desire to do a task well, and to try to do it better the next attempt. Self-control and adjustment are taught. The child must be made to see a definite goal, or he is apt to develop listless, lazy habits.

Training in oral expressions is important in the kindergarten. It develops a larger vocabulary for reading in the first grade. The kindergarten helps develop initiative.

After the child has completed the kindergarten work, he is placed in the first grade. Children who have been in attendance in public schools and whose tests show that they should be in the first grade, are placed in this group also.

The pupils are given a reading test at the end of the first half of the year and if any show that they do not belong in the group they are placed in the group in which they should be. At the close of the school term another test is given and the misfits are again removed. Then these are given a test in the fall before being assigned to their classes.
On May 19, 1932, the writer gave the Haggerty Reading Examination, Sigma 2, to the same group of children. Every child in the room had made some progress during the year.

At the close of the school year, the principal of the school, with the help of the teachers, made a profile chart for each child.

The child who showed no progress in any subject during the year was not returned to school the next fall. He was allowed to continue his manual training and handwork if he showed some aptitude toward the work.

By studying the individual graphs, it will be noted that all the children showed some improvement during the year, although it was very slight in some instances.
<table>
<thead>
<tr>
<th>Name</th>
<th>C. A.</th>
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<th>Total on Test</th>
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<th>Industry</th>
<th>Total on Test</th>
<th>Ability by Grade</th>
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<td>1D</td>
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<td>23</td>
</tr>
</tbody>
</table>

*1 Sent to institution from Saloua because he was incorrigible.

*2 Had attended public school one year.

*3 Had attended public school one year.

*4 Defective eyesight remedied.

*5 Resented being with smaller children. Low intelligence.
Interpretation of table

CA = Chronological Age of Child
IQ = Intelligence Quotient
Total on test = Total Score on test
Ability by grade = The reading ability as rated in the test.
Industry = The child's industry during daily recitation and silent reading periods

1B = First semester of the first grade.
1A = Second semester of the first grade.
2B = First semester of the second grade.
2A = Second semester of the second grade.
## INDIVIDUAL PROFILE CHARTS

### Name A.
**Date June 1932**

<table>
<thead>
<tr>
<th>C.A.</th>
<th>5 6 7 8 9 10 11 12 13 14 15 16</th>
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**Rating**

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**Date June 1932**

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* = Reading Placement, Oct. 5, 1931
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**Date**: June, 1932

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Placement, June 1931

### Name D
**Date**: June, 1932

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Placement, June 1931

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# Table 1033

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- = Placement, June 1931

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# Table 1033

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| Grade | 5 6 7 8 9 10 11 12 13 14 15 16 |

- = Placement, June 1931

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Interpretation of Individual Graphs.

C.A. = Chronological Age.
I.Q. = Intelligence Quotient
M.A. = Mental Age

School Grade = Grade in which child should be according to his mental age.

Placement = Placement in each grade, June, 1932.
Placement = Placement, June 1931.

Norm = Norm for M. A.
Summary:

The children were given the Binet Intelligence Test upon entering the institution at Boulder, Montana. They were then placed in school if they showed any possibility of learning.

In the experiment the intelligence scores were available for placement and diagnostic purposes. On October 5, 1931, the children in the experimental group, consisting of 15 who had been in the first grade the year before, were given the Haggerty Reading Examination, Sigma 1, to ascertain thought-getting and word mastery. The teaching of reading during the year was enriched with all available methods, devices, and activities as described in subsequent chapters. At the end of the year the Haggerty Reading Examination, Sigma 2, was given to measure the progress. Using the scores and the norms for mental age, a profile chart was made for every child. The range of progress made was from 2 points on the Haggerty scale, for a child having an I.Q. of 53, to 31 points on the Haggerty scale for a child who had an I.Q. of 92. The latter was not subnormal, but a boy who had been sent to Boulder for incorrigibility. His progress was far beyond the normal progress for his age. His progress may suggest possibilities for the public schools.
CHAPTER VI
THE TEACHING OF READING

There is no one reading method for defective which has been found infallible up to this time. A special method has been adopted. The method which the teacher finds to give the best result is the one she should use.

Before being taught reading, the child should have been subjected to a fairly wide range of experiences and activities. The kindergarten gives these to the child.

To the early people reading was one of the most mysterious arts, both in its performance and its origin. To the young child, reading is a mystery. The printed page is confusion to him.

Then he starts to school he has a fund of word sounds which have become more or less familiar to him through repetition and which he can reproduce in his speech. This fund of word sounds are the oral symbols. He speaks and he can say many words which he understands well, but he also has a certain fund of words the sound of which he has not heard, but has only faintly or imperfectly associated with meaning. This part of the oral symbol fund consists of recently acquired, or the incoming part of his vocabulary.

The printed symbol is outside of his experience. It has no connection with either oral symbols or meaning. The problem of teaching the child to read becomes that of con-
necting the printed symbol with his pre-school experiences.

The beginning period is of special significance, since it is here that the method of perception of words, motor habits of eye and tongue and other essential techniques are initiated either properly or not properly. The mental and emotional attitudes are also established here.

Gesell says "that reading in the primary grades should be an illuminating accomplishment to all the other subjects of the curriculum. It should be conducted so that it is intimately tied up with community life, nature study, manual arts, literature and civic ideals."

Not so many years ago we used the alphabet method in teaching beginners to read. The child had to start from the printed symbol. From this he was led to the spelling of the word; from the spelling to the oral symbol; from this point, to "oral reading"—that is, he was taught to pronounce the words in the sequence in which they were printed in his book. There was occasionally some connection between the oral symbol and its meaning, but this was left more or less to chance. If the pupil pronounced his words well, he was considered a good reader. Reading meant calling words.

32. Arnold Gesell; Normal Child and Primary Education
   P. 199
33. Harry Sheat; The Psychology of the Elementary, 1931;
   New York, Chapter II
The steps in this method can be illustrated by the following diagram.

After a great many years of this unsatisfactory procedure, some people came to realize that the spelling of the word had nothing to do with reading.

The object of the new method was to develop for the child as quickly as possible, the ability to pronounce words. It was a phonic or word method. It was believed that this type of teaching saved a great deal of time.

The following diagram shows the procedure of the method:

Children did learn to pronounce more words than they did in the alphabet method. The emphasis, which was laid on phonetic ability in the first part of the child's school life had the effect of diverting his attention from the
meaning of what he read and of giving him a habit of lip
movement or inner speech that persisted in later years to
the detriment of his real reading ability. Reading was still
largely word calling.

We expect a child to get the meaning of what he reads.
we now train the child from the first to do what we expect
him to do always—that is, to associate printed symbols di-
rectly with their meaning. Thus we have recognized in pro-
fession and in practice that we need a thought method to
train the child to get the meaning from the printed page.
The newer trend can be shown in the next diagram.

Oral reading did not require the child to get the mean-
ing of what he reads, for the path from the printed symbol
to "oral reading" has two branches, phonetic and silent read-
ing. He cannot travel both roads at the same time and it is
far more likely to take the path of least resistance, which
is the phonetic route.

Instead of having the reading responses directly con-
nected to and resulting from oral symbols, the reactions are
now connected with the point of the triangle which represents meaning, and all reading activities are made to start from this point. This means that the old type of oral reading cannot be used as a check for thought-getting, for it is obvious that if the teacher takes her position at the point of the diagram marked "oral reading" she cannot be certain of the path the pupil took in his trip from the printed word to that point.

The old viewpoint is that we can hear a child read. The following diagram shows the mental associations involved in the reading problem. So part of it is audible.

![Diagram of reading process]

The oral symbols represent the child's ability to recognize the sound of words and to reproduce the pronunciation. Whatever reading is done lies within the processes represented by this triangle, all of which are audible. That we may hear or see that is in anyway connected with the child's reading lies entirely beyond this triangle. That we hear or see is not reading, but only his reactions and responses: reading is thinking.

The kind of response we ask the child to give in his
reading determines his impression of what he is reading.
If we call for and demand reactions which require thought-getting, then the child will expect his reading work to have meaning. If we are satisfied to accept pronunciation or oral reading as a reading response, then we cannot blame the child for thinking that calling words means to read.

The procedure should be as follows:

The fundamental habits and skills that should be established in reading as set forth in the Twenty-fourth Year Book, Part one, are:

"The intelligent interpretation of what is read is a problem of first importance and must be emphasized vigorously in every grade. It includes a clear grasp of the meaning of passages, an understanding of the thoughts, emotions, and ideas expressed, and the arousal of appropriate emotional attitudes. In other words, it is a form of clear, vigorous thinking, involving the formation of numerous valuable associations. It presupposes keen interest in what is read and a strong reading motive. In simpler types of reading, it includes also the following attitudes and habits:

Concentrating attention on the content.
Associating meanings with symbols.
Anticipating the sequence of ideas."
associating ideas together accurately.
recalling related experiences.
recognizing the important elements of meaning.
deriving meanings from the context and from pictures.

Some of the methods for the development of reading abili-
ties are:

"In Finding Central Thought and Following Outlines
(Selecting and organizing major and minor ideas)
(a) Classifying objects
(b) Using key words and topic sentences
(c) Discerning relative value of selected ideas

In Following Directions (Interpreting and executing ac-
cording to instruction)
(a) Summarizing in oral interpretation and in moving
pictures
(b) Taking objects
(c) Playing games

In Analyzing and Evaluating Meanings (Interpreting thoughts)
(a) Selecting important points
(b) Finding answers to questions
(c) Weighing evidence presented

In Speed (Third Year only)
(a) Measuring speed with the aim of bettering the in-
dividual record
(b) Increasing ability to recognize words at first
sight.

In Comprehension (Understanding of Sentences)
(a) Practice in thought-getting from phrases, sen-
tences, paragraphs, and stories
(b) Checking comprehension by five types of tests: mul-
tiple choice, completion, matching, true-false, and
organization

In Vocabulary Development (Development and Increase of
Word Knowledge)
(a) Developing meaning of words by illustrations
(b) Building vocabulary from context
(e) Recognizing new words by phonics, cues, and context

34. The Twenty-Fourth Yearbook, part I; p. 14
(d) Finding synonyms and antonyms  
(e) Classifying words as to thought relationships  
(f) Fixing words by repetition  
(g) Fixing words by dramatization

In Correct Handling of Books  
(a) Practicing use of Table of Contents  
(b) Turning pages  
(c) Using cross references  
(d) Using library

Up to September, 1930, the Comprehensive Method and the Gordon Readers were used in the State Training School, at Boulder, Montana.

The author was permitted to use her own methods. The Scott Foresman Company, of Chicago, sent a set of complimentary books to be used in the experiment.

The reading aims that the author adopted, as set forth in the Twenty-fourth Yearbook of the National Society for the Study of Education, were:

1. Awakening of keen interest in reading, and the stimulation of a strong desire to learn to read well.  
2. Provision for the orderly and economical development of good habits of recognition in both oral and silent reading.  
3. Extension and enrichment of experiences and satisfaction of interests and needs.  
4. Power developed, also excellence, and efficiency.  
5. Elevation of reading habits, tastes  
6. Development of reading attitudes and habits involved in study activities, including skills in the use of books.  
7. Study of the needs of pupils in fundamental reading habits and provision for corrective training when needed.  

35. Twenty-fourth Yearbook, loc. cit.  
36. The Twenty-fourth Yearbook, M.E.S.E., Bloomington, 1924, Page 161
The author has always believed that backward children can and will learn to read but that the training must be effective from the first.

It was necessary for the author to build up a usable and ever widening spoken vocabulary by means of games, social activities and discussions. The pre-primer period for the backward child varied. Some required six to eighteen weeks and a few required almost a year of this preparatory training. This period was used to develop their language abilities, to acquaint them with the idea that the printed symbols represented ideas, and to develop a desire to read.

Too much emphasis cannot be placed upon the teacher’s daily preparation for reading instruction. Each reading period was planned to secure progress in one or more phases of reading. The teaching procedure of each lesson was determined by the purpose and the content.

The first reading lesson was presented in the following manner. The children told about an experience they had had. The sentences were written on the blackboard. They read the story as a whole from the board. The following day, the story was printed on oak. The story was then divided into sentences. These were placed in the Plymouth Chart in correct order. The children were taught to think through the sentences before they read them orally. Expression was stressed from the very beginning. They learned the meaning of a period and a question mark in their first lessons.
After the recitation period each child was given a set of these typewritten sentences, which he pasted in correct order on a sheet of paper. The children illustrated their stories.

The sentences used in the recitation period were cut into phrases as soon as the pupils mastered the complete sentences. The words were introduced after the phrases were familiar to the child.

The author kept the vocabulary of the primer in mind and led the child to use the words which would be presented in the primer. She also checked with the Gates word list.

The backward children needed much more drill than normal children usually do. The drills needed to be interesting and dynamic. The drill games used were simple but delighted the children.

Materials used in drill work were, blackboards, flash cards, pages from old discarded readers, typewritten directions, phrases and stories.

The aims for oral reading are:

for expression, enunciation, pronunciation, observation of punctuation marks, proper pitch and tone of voice, and thought to listener.

The habits should be a short eye sweep and proper habits of utterance. The procedure is to select material; introduce the story to create interest; drill on difficult phrases; the individual reading and discussion; and read or tell the

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story as a whole.

Causes of difficulty in oral reading are irregular attendance, poor health, nervousness, eye or ear defect, vocal or breathing, lack of interest, inability to remember new words easily, inability to analyze and pronounce words, inadequate speaking vocabulary, speech defect and guessing.

The Elson-Grey Pre-Primers, published by Scott Foresman of Chicago, were introduced to the children after they had had ten weeks of preparatory reading experience. The presentation of the new books was a happy day. The children had learned a little poem about new books which they had learned to read. The little rhyme was:

"Welcome, welcome, nice new books.  
I'll be careful of your looks.  
Then, when I am through with you  
You'll be just as good as new."

Demonstrations were given in holding the book. The correct distance the book was to be held from the eye was measured with a yard stick. They discussed how they could be careful of their books.

The stories in the Pre-primer were printed on oak-tag or written on the board. The same procedure was followed as in the previous reading lessons. After the child had mastered the new words in the lesson, he was allowed to read the lesson orally or read the answer to the question asked by the teacher.

Keen interest resulted from a series of activities in which the children discovered that reading contributed to
their pleasure and satisfaction. The children liked reading as long as they achieved marked success. Vigorous emphasis was placed from the beginning on the thought-getting process, and the subordination of the mechanics of reading to thoughtful interpretation. However, the teacher and the children were not so concerned with the preparation for reading that they missed the intrinsic joy of reading.

Reading for the backward child is very liable to be characterized by word calling, rather than by rhythmic comprehensive units. The best way to overcome word calling was to have the reading material in short easy units, with a limited vocabulary of easy words. The content came from fields which fell within their social interests. Older children did not care for simple stories of the normal six-year-old.

No work in phonetics was given until the child thoroughly understood what it meant to read and had established correct eye habits. Phonics plays a useful part in reading to work out words, after habits are stabilized. It must be remembered that phonics may be able to help the child sound the word but it does not teach him the word.

"The careful first grade teacher will organize and conduct in varying amounts, instruction in methods of analysis of all pupils, to show each pupil about the sounds of words until he has the correct idea of the procedure and enough practice in using the idea."

Phonetic training that makes the child feel he masters a word by pronouncing it, and, that causes a teacher to accept pronunciation as recognition, is positively detrimental.
to reading. The same phonetic ability that will connect the printed symbols and the oral symbols for the familiar, spoken, and relatively small vocabulary of the child will make similar connections for the large vocabulary which means nothing to him.

Phonetics were not given to these subnormal children until their attitude toward word recognition was correct, and until they understood that they must know the meaning of the word. This is clearly stated in the Twenty-fourth Yearbook of the National Society for the Study of Education:

"No separate work in phonetics should be done until the child has established the habit of thought-getting."

The children were taught to analyse the words rather than learn phonetic rules. They were encouraged to attempt to pronounce unfamiliar words rather than pass over them, without asking for help.

The author chose Patterson's objectives in first grade reading as a guide. They are:

1. To stimulate keen interest in reading and a desire to read independently.
2. To secure new and vicarious experiences in reading.
3. To introduce pupils to the thought-getting process and to develop the ability to read independently and intelligently simple passages such as are found in first grade readers.
4. To associate meaning with written or printed symbols.
5. To develop thoughtful reading attitudes.
6. To have simple passages rapidly interpreted.
7. To secure a wide span of recognition, with a regular forward movement and accurate return eye sweep.

8. To develop reasonable speed in reading.
9. To gain accuracy.
10. To gain independence in word recognition.
11. To enlarge the reading vocabulary.

The children soon learned that merely calling words was not reading. They knew that they must understand what they read.

The following chart shows the forms of responses used by the author to develop comprehension and to aid in checking the children's thought-getting.

1. Direct action, as hop, run, etc.
2. Say that you are doing what character in story is doing.
3. Or matization
4. Social responses, oral reading, games, etc.
5. Matching - building
6. Answering oral questions
7. Answering written questions
8. Giving information
9. Giving main idea of a selection, part, whole, or sentence.
10. Comparing
11. Verifying
12. Organizing

1. Color response
2. Recall response - putting line, dot, etc., etc.
3. Diagnostic testing
4. Drawing, cutting
5. Matching - building puzzle games
6. Finding answers to questions or problems
7. Answering written questions
8. Finding main ideas in a selection or a para graph.
10. Studying.
There are five major causes of deficiency in word recognition. These are: (1) inferior mental capacities, (2) lack of general experience in oral English, (3) limited to an unusual vocabulary, (4) lack of training in word recognition and (5) inappropriate methods of perceiving words and learning new words.

The children were taught to analyze and criticize their own reading. The author made an oak-tag chart which was hung in the room. The child was given a number that corresponded with the defect in his reading. He was assisted in reading the sentences on the chart. He was given constructive criticism. He was asked to follow certain remedial measures. As soon as he overcame his difficulty the number was returned to the teacher.

The following chart was used by the author at the Training School.

(next page)
<table>
<thead>
<tr>
<th>No.</th>
<th>Deficiency</th>
<th>Diagnosis</th>
<th>Remedial Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lack of fluency</td>
<td>Points to need of well directed learning</td>
<td>You need much practice with easy material.</td>
</tr>
<tr>
<td>2.</td>
<td>Frequent halts and hesitations</td>
<td>Low stock of sight words</td>
<td>You need practice on sight words. Need more easy material.</td>
</tr>
<tr>
<td>3.</td>
<td>Confusion in oral reading</td>
<td>Little or no power of word analysis</td>
<td>You need practice in oral reading material beyond ability.</td>
</tr>
<tr>
<td>4.</td>
<td>Requests help on single words</td>
<td>Insufficient drill</td>
<td>You need practice on sight words.</td>
</tr>
<tr>
<td>5.</td>
<td>Breaks up sentence without due regard to proper grouping</td>
<td>Inability to recognize thought units</td>
<td>You need training in phrasing.</td>
</tr>
<tr>
<td>6.</td>
<td>Mechanical reading</td>
<td>Over-difficult material</td>
<td>You will read a more interesting book.</td>
</tr>
<tr>
<td>7.</td>
<td>Reads jerkily word by word</td>
<td>Over-analytical instruction</td>
<td>You will need to learn to read in a natural talking voice.</td>
</tr>
<tr>
<td>8.</td>
<td>Vocalization or lip movement, points with finger</td>
<td>Over-emphasis on reading with expression. Insufficient emphasis on reading.</td>
<td>You will not use our lips or point. Look your lips and hold the book with both hands.</td>
</tr>
<tr>
<td>9.</td>
<td>Disassociating words</td>
<td>Poor habits in recognition of speech defects</td>
<td>You will practice pronouncing the words correctly.</td>
</tr>
<tr>
<td>10.</td>
<td>Substitution</td>
<td>The material is difficult</td>
<td>You will read for thought and also read a new book.</td>
</tr>
<tr>
<td>11.</td>
<td>Loss of place</td>
<td>Inattention, Timidity</td>
<td>You will be very calm and do just the very best to o. You may use a cardboard marker for a while.</td>
</tr>
<tr>
<td>12.</td>
<td>Slow Reader</td>
<td>Work too difficult</td>
<td>You read easy work until you read more rapidly.</td>
</tr>
</tbody>
</table>
In oral reading, both meaning and pronunciation must be recognized. A story hour for the children stimulated additional growth in the habits of thoughtful reading and increased the children's desire to become good readers. There was voluntary reading in free periods; pupils were arranged in small groups on the basis of their ability and they read orally to each other.

It was necessary to have some oral reading daily for the defective children. It developed their power as readers; it made desirable habits permanent and eliminated incorrect or undesirable habits.

Class discussion of oral reading was very helpful. The following suggestions were helpful for training in the independent use of habits of recognition:

1. Train children to attack the lesson with questions in mind after looking at the pictures.
2. Limit attention at first to a single line or sentence by use of marker.
3. Learn the different ways in which children may attack each word.
4. Tell at once the word or words which you do not expect any child to get; e.g. "The first word in this line is now. The last word in this line is under.
5. Train children to work across the page, getting words independently, if possible without any help.
6. Be sure that they get words from context or from phonetic elements when possible without interrupting thought.
7. Secure responses by action, drawing or oral reading to see that pupils subordinate the words to thought.
8. Occasionally emphasize a few of the more important words by having pupils find them on the page in response to thought questions; find the boy's name. Find the words which tell where he is taking the cows.
9. At a separate time give needed drills, phonetic elements, words, and groups of words being selected on the basis of a: frequency with which they are needed; b: specific needs of individual children. No phonetic elements are to be used in isolation; they are always to be given in well known words.

The steps in developing a meaning vocabulary were:

1. Wide extension of experience, with care that new words are learned which fit these experiences.
2. Opportunity for repetition of new words in connection with additional interesting experiences.
3. Special care to use early, the vocabulary of the primer in connection with discussion of pictures, games, and other activities.
4. Observations by the teacher to determine vague expressions for which definite vocabulary should be substituted.
5. The elimination of difficulties as children attempt to use new words.

Steps in developing accuracy in word recognition are:

1. Teaching as sight words a preliminary list of words already in the speaking vocabulary for the children.
2. Noting the gross similarities and differences in the form and sound of the words in the preliminary list to which children give spontaneous attention.
3. Introducing the use of a book when pupils have learned to think of reading as thought-getting and have a sufficient reading vocabulary to attack simple stories with confidence.
4. Beginning work in phonetics when pupils notice freely gross similarities and differences in the form and sounds of words. This usually occurs a few weeks after books are introduced.
5. Introducing definite work in phonetics, with special attention to individual needs as early as these can be discovered. Thru this work pupils should master the phonetic assignment of grade.

The author gave the children some oral reading daily but as soon as they were able to follow written directions, they were given silent reading in the form of seat work.
Later they were given silent reading lessons daily.

The first problem in studying silent reading was to decide which of the three factors—quality, difficulty or time should be chosen as the variable to be measured. Quality in reading is an elusive thing which varies with different individuals. Each child receives a different reaction from reading. The reading process awakens in consciousness thoughts and memories of the most varied character.

The aims for silent reading are comprehension, thought getting, speed in thought getting and organization. The habits to be acquired are a long eye sweep, no lip movement and no throat reaction or utterance. The procedure used was selecting material that was mainly content; drilling on difficult phrases; drilling on long eye-span; directing the reading and the discussion by thought units; and estimating the speed and the comprehension. After the lesson was read, the pupils retold the story or answered questions either orally or written. True and false statements, completion of sentences either by inserting a word or by multiple choice were aids used in checking comprehension.

If a child learns to read silently and rapidly in the primary grades, he has an advantage of being able to learn his other lessons better and more quickly. Silent reading should not take the place of oral reading for backward children, but it should supplement oral reading. A group
of normal first graders should complete at least twenty readers and the second and third grade from thirty to forty readers within the school year. A backward child cannot complete that number but he should be encouraged to read as many as possible. There were several first grade children in the State Training school who completed twelve readers, and several second grade children also completed that number. A library table to which the children have access motivates silent reading.

The children in the first and second grades made class books. They enjoyed reading the stories of their classmates. They illustrated their own stories. The teacher and pupils printed a daily newspaper, using a printing set and wrapping paper. They related incidents of interest that occurred in the institution and often brought news items of outside interest to be printed in the paper. The children would read and reread the paper and derived a great deal of value from it.

The pupils also made several movies of stories they enjoyed and illustrated industries such as lumbering and the story of a loaf of bread. These were made from a roll of wrapping paper. The children decided what they would write or print in the movie and what pictures were needed to illustrate the sentences. After an outline was made, the children, with the teacher's supervision, wrote or printed the stories and illustrated their stories with far more
animated illustrations than any normal child could make.

Graphs and charts of each child's progress were kept. They were not to shame him but to arouse his pride. The graphs also showed the improvement that should be made.

The Charter's scale of speed in reading was used as a standard. The scale allows ninety words per minute for the first grade, one hundred eighty words for the second grade and one hundred twenty-six words for the third grade.

It is necessary to watch for lip movement in the mental defective. Silent reading may be slow, due to excessive articulation. He may roll his tongue and it is necessary to watch his throat. Another reason for slow reading was the pointing with a finger. The children overcame this habit when they were asked to hold the book with both hands. Several children had short eye-spans. This was overcome by giving phrase drills from cards and gradually increasing the cards in length and difficulty. They were given practice in finding the same phrases in their books.

The work in second grade reading was very similar to the training in the first grade. The pupils were much more independent and many of their reading habits were already formed.

Berta H. Farmer, Primary Supervisor, of Lawrence, New York, gives the following abilities that should be acquired in second grade:

- Hold and strengthen habits and skills already achieved.
and to develop ever-increasing power;
Recognize words and groups of words;
Recognize sentences as units of thought;
Comprehend what has been read;
Find answers to questions;
Follow directions;
Select and organize meanings;
Use table of contents;
Concentrate on what is read;
Enjoy humor;
Read smoothly with intelligent expression;
Interpret punctuation correctly;
Gain new words phonetically with increased holdy;
Read silently with diminution of lip movement;
Employ correct eye movement;
Incorporate and articulate clearly;
Handle books efficiently."

The attitudes which one gives are:

"Desire to read;
Desire to read in a pleasing, expressive voice for
the information and pleasure of others;
Acceptance of the imagination as a pleasure-giving
aid;
Aesthetic appreciation of material read;
Desire to protect and preserve books."

The procedure are:

"Interesting word study period for pronunciation, articu-
lation and meaning;
Rapid drill on troublesome words;
Rapid parrot drill;
Reading and interpretation of meanings secured by:
1. Questions,
2. Read and Co,
3. Making things according to directions;
Reading parties and dramatization afford opportunities
for building desirable abilities;
Book reports and book clubs activate efficient use
of books and magazines;
Silent reading; namet
Exercises requiring dramatic action;
Exercises requiring response in writing;
The reading of as many books as possible;
Systematic phonetic drill to secure power in word
getting;
Conversation lessons concerning places visited during
vacation; sand table and table representation of
places visited;
Children contribute ideas, pictures, and materials
for carrying out suggestions;
Construction of streets, showing expansion of civilization: the church, the school, the stores, the police precinct, the firehouse, etc.
The other helpers afford opportunities for self-expression; namely, the millman, iceman, postman, engineer, farmer, etc.
The idea of safety can be emphasized through making and reading signs and through booklets containing drawings and pictures collected by the children.
Oral and written stories with illustrations clarify meanings, and increase ability to use the desired medium efficiently.
Original stories and poems make possible individual development.

Patterson's steps in extending a meaning vocabulary were followed. They are:

1. Wide extension of vocabulary through experiences, with care that appropriate new words are learned to fit into experience. Arousal curiosity concerning new words which convey interesting meanings. Special attention to words and idioms significant in beginning numbers and geography.
2. Growth in expecting words not in text to fit into content and to be words which children themselves use or hear others use.
3. Exerting knowledge of when to ask for help in interpreting the meaning of a word not in context.
4. Utilizing knowledge of synonyms in clarifying text difficulties. Children give words or groups of words which mean the same as those in the text. For e.g., the book uses a haughty maiden the child supplies (a proud girl).
5. Exercises in classifying words under general headings to call attention to certain elements of meaning, e.g., form a given list of words children arrange the lists, one containing the names of workers, the second containing the names of the work each does.
6. Informal and standard vocabulary tests to make certain that steady growth is being attained.

The steps in developing accuracy in word recognition are:

1. Have that all children know certain sight words, e.g., when, among, etc. Needed drills to be given preferably with groups of words on the basis of individual needs.
2. Emphasis on training in phonetics according to a definite system, with sensible standards for measuring results. This work to be intensive and given to small groups selected on the basis of need.

3. Care that phonetics are used when needed in un-locking new words in context.

4. Exercises in arranging short lists of words alphabetically as to initial letters or in groups selected according to common phonetic elements.

5. Constant attention to specific words on which children need careful training in pronunciation, and to special children whose speech habits indicate need of remedial treatment.

6. Early discovery of pupils whose classification needs to be changed to provide help in harmony with individual needs.

The suggestions for training in the independent use of habits of recognition are:

1. Train children to attack the lesson with questions in mind after looking at the pictures. This arouses ideas which may recall many words to be met in the context.

2. Limit attention to short unit, a sentence or short paragraph.

3. Know the different ways in which children may attack each work.

4. Know the different values of each word in relation both to context and to pupil's habits of recognition.

5. Train children to work rapidly through the unit assigned, getting words independently if possible, asking for help only if necessary.

6. Tell promptly difficult words, which pupils cannot be expected to know.

"The mere mechanics of reading are not particularly diagnostic of mentality, but reading for content is found, when measured by standardized tests, to coordinate very closely in school children with general intelligence. This coordination should suggest what can be accomplished in teaching reading to retarded children."

It is very desirable that mental defectives learn to read. A ten year old mentality in a man may not understand

43. Inskeep, op. cit., p. 30
a printed page as well as a normal child of that age, but he may be a good day laborer and he will have more self-respect if he is able to read. Not only does it increase self-respect but he is able to read signs and directions and he may read for recreation if he wishes.

Summary:

There is no set method for teaching reading to the mental defective but the newer methods seem more successful. A reading attitude of expecting and seeking meanings should be developed by thought-provoking questions and definite directions. Much improvement can be made in both silent and oral reading if the children begin every lesson with a clear idea of the purpose of the lesson and how they are to study the lesson.

In teaching backward children, adequate equipment, appliances, and supplies must be furnished. The class must be conducted on a genuine experimental, observational and diagnostic basis. The children must understand from the very beginning that mere word-calling is not reading. The child can only improve himself when he knows what his weakness is. The child must have the desire to read well. The work must be made so interesting that he cannot help but
learn. The lessons should appeal to the instinctive interests. The pupil must be allowed to develop initiative of his own.

As shown in the results of the tests given at the State Training School at Boulder Montana, backward children can make fairly rapid progress in reading if they are interested and are given the proper material.

The materials and books used were:

1. Elson Gray Readers published by Scott, Foresman Company of Chicago. The stories in these readers were of experiences similar to the children's. The colored illustrations added much to the book.

2. Real Life Readers by Patty Hill, published by Charles Scribner of New York. These readers contained stories of western life. The pictures were actual photographs and appealed to the children.

3. Work Play Books by Gates-Huler, published by Macmillan Company of New York. These readers contained interesting stories of animals. They were cleverly illustrated.

4. Winston Readers, published by Winston Company, New York. These readers contained stories the children were familiar with. The stories in the primer and first grade contained a great deal of repetition.


6. Thought Test Readers, published by University Publishing Company, Hanover, New York. Directions for each lesson were given on a separate work sheet.


8. Best Stories, published by Wheeler Publishing Company, Chicago. Both of the above books are written by Marjorie Hardy. They are more difficult than the other readers but contain some interesting stories.
9. Cordt's *New Path to Reading*, published by Ginn and Company. The stories contain experiences of daily life and stories of interest to the child. The illustrations are not so good.

Beside the books mentioned above, several other sets were read. Other materials used were wrapping paper, hectograph, newsprint, crayolas, scissors, paste, printing sets, rulers, flash cards and pencils.
CHAPTER VII

SPEECH DEFECT AND WORD BLENDNESS

The speech defects that hinder oral reading are stuttering, lisping, letter substitution and nasality. Often adenoids, sinus infection, infected tonsils, poor posture, general physical and nervous conditions affect the defective breath control. Defective articulation is caused from malformation of the oral cavity, thickened tongue, interdental spaces, inaccurate tongue position, nervous disorders and wrong speech habits.

Wallin's speech investigations in the St. Louis schools showed "that there were over nine times as many speech defects among the children in the special schools for the mentally defective and seven times as many among the children examined in the clinic (about ninety per cent) of whom were more or less subnormal, and about thirty-five per cent feeble-minded), as were found among the pupils in the regular elementary and high school grades."

In the State Training School at Boulder, about thirty per cent of the children in the writer's classes were speech defectives.

Stuttering was the most prevalent defect. Stuttering is a nervous disorder. Most of the stutterers were anemic

45. Wallin, op. cit. P. 355
It was necessary that the principle of relaxation be used to aid in overcoming the emotional condition of the patient. He was taught to speak in a soft, easy and pleasant tone. The author spoke declarative sentences and questions alternately. The child repeated these. He was taught to make his tones flexible. Usually the stutterer spoke too rapidly. He was trained to speak slowly and distinctly.

Tongue and lip gymnastics were used in speech correction. Good posture was stressed constantly. A desire to speak correctly and distinctly was instilled in each child. However, no one was to be embarrassed or laughed at, if he made an error. The children memorized short poems. These were said in unison. The children would volunteer to say the poem alone or with another child. The pupils used toy telephones and carried on conversations. It was necessary to speak distinctly over the telephone. They made a microphone from a coffee can, prune box and broom stick. Programs were prepared and broadcasted. After the imaginary broadcast, the children discussed each performer's ability. A child was allowed to repeat his part of the broadcast, trying to eliminate any previous defects.

Some singing exercises were used in corrective work. The child sang the scale, using the syllables mah, meh, moh, etc. The sounds were also held at high C.

Defective vocalization is often caused from paralysis.
of the parts of the speech mechanism and nervous disorders. Nasality is caused from a cleft palate, adenoids, persistence in wrong habits of speech and the lack of use of the nasal passages.

Lisp ing did not continue very long with any child in the classroom, unless it was an organic defect. The child was shown how to hold his lips in order to make the correct sound. Letter substitution was treated in a similar manner.

Many children, who are backward are suffering from word-deafness or word-blindness. Word-blind children have a normal vision but cannot read the simplest words. The cause is a defect in the visual speech center in the brain. Researches into the brain structure have informed us that mental and physiological functions are localized in definite areas of the brain. Defects in these areas may impair that particular function without detriment to the general mental conduct. Word deafness is caused by a similar defect in the auditory speech center. The word-deaf child has no impairment of the hearing but cannot perceive or recognize spoken word.

"Dr. C. J. Thomas considers that one child out of every 2,000 non-mentally defective children is word-blind, while among mentally defective children the number rises to as much as 1 in 20. The act of reading is dependent upon printed words being perceived as the symbols of particular ideas or objects. This process is a cortical one, and is sub served by an area of the temporal lobe. A defect of this area does not interfere

46. Tredgold; op. cit., P. 46
with ordinary vision but it may render the person in capable of recognizing the meaning of the printed or written words, and he is then said to be word-blind. Children so affected may have considerable ability in other subjects but it is impossible to teach them to read even words of one syllable. The word-deaf are similarly defective in the power relating the sounds of words with their meaning, altho there is no deafness in the ordinary way. Such children can write from copy and can draw and they may understand what a person is saying by watching the movement of his lips. It is only by teaching them lip reading that there is any possibility of their learning to speak."

47. Tredgold, loc. cit.

Summary:

About thirty percent of the children in the State Training School had some speech disorder. The most common defects were stuttering, lisping, letter substitution and nasality. The children who were speech defectives were nervous and usually anemic.

The pupils were given speech exercises, and breathing exercises. Good posture was stressed.

Word-blindness is often the reason a child cannot learn to read. The cause is a defect in the brain.
CHAPTER VIII

ACTIVITIES AND DEVICES USED IN TEACHING READING

Dewey has said that without activity, there is no learning process, and also that play is not to be identified with what the child does externally, but with his attitude toward the thing to be done. With these two facts in mind, definite provision must be made for the outlet of the child's activity and for securing his interest. There is no better way to do this than through classroom experiences which are the natural outgrowth of his everyday living and the connection, which binds him to the world about him.

Activities and experiences which are practical and possible under the conditions of the school should be chosen. The teacher must choose those that contribute to growth and lead on to new experiences that are educative, but she must eliminate all that do not make for wholesome and efficient living.

In pre-primer work in the State Training School at Boulder, Montana, the children drew their toys. The author wrote on the board:

"Draw your toys.
Draw the toys you like best."

She framed the first sentence with her hands and read it. The second sentence was treated in the same manner. The whole class became busily occupied with pencils and crayola.

48. Wheat. *op. cit.*, P. 33
Reading units were then developed. The youngsters were called to the board in small groups. The children were asked what they would like to tell about their toys. Some child said "I have a red ball." This sentence was written on the board. Each child contributed a sentence. After all the sentences were written, each individual read his own sentence. Some children were able to read the entire story. The next day sentences were given to each member of the class, telling him what to draw. The work was checked after it was completed. Each child showed his drawing to the class and read his sentence.

The children made a toy shop. They brought their toys to the classroom. A store was built from apple boxes. The toys were arranged on the shelves. Each toy was labelled and priced. One child was chosen as the clerk. The rest were customers. They received valuable vocabulary drill in this procedure. They learned to replace all the labels when they were removed. Discussions on courtesy, generosity, care of toys and the hygienic condition of toys developed from this unit.

Each member of the class made a booklet from wrapping paper. Printed directions for drawings were given to each individual. The children made stories which were duplicated and pasted in the books.

The work of each member was evaluated by the group, when the book was completed. The stories were read to the
class. Books were made several times during the school year.

Each child made a dictionary. Printed words and the pictures to match were pasted in the book in alphabetical order. Number and color charts were also made for the dictionaries.

Nursery rhymes, short poems and songs were sometimes used for reading lessons. They were printed as a whole on oak-tag. The procedure described in the previous chapter was followed.

When the primer was presented to the children, the difficult phrases and sentences were written on the blackboard and analyzed. They were asked to read to a certain point in their books to find the answer to the questions. The teacher sometimes told a part of the story and they finished reading it to find out what happened. Copies of the stories were sometimes hectographed. The child was asked to underline the answer to the first question with a red crayola, the answer to the second question with a blue crayola, etc.

The children organized a reading club. They selected their president and secretary. The president conducted the meetings and the secretary acted as librarian. Every Friday, the children spent thirty minutes in reading orally to the class. They consulted with the teacher, and with her help, prepared the story to be read. No one was permitted to take part unless he could read well. Each reader's strong and weak points were discussed. He was given helpful
suggestions for improvement.

The librarian took charge of the books that were loaned. Each child had a library card. After he had finished reading a book, he reported to the teacher. The author had read all the books and had filed a set of questions and answers for each book. The child was expected to answer the questions and tell what he liked especially about the book.

Lip reading was discouraged at all times. The author took each child's picture. This picture was cut out and pasted on a card two by four inches. A sign, "We Read With Our Eyes," was tacked on the bulletin-board. The pictures of the children who were lip readers did not appear under the sign.

The sandtable was used constantly in connection with the reading. They illustrated stories and wrote stories about their work. The following is an illustration of their work:

1. We made three houses.
   They are pigs' houses.
   One is made of straw.
   One is made of wood.
   One is made of bricks, (clay and pebbles).
   We made three pigs from clay.

2. The wolf ate the first pig.
   The wolf ate the second pig.
   The wolf could not eat the other pig.

   We made an apple tree by tying gum-drops on a branch of a tree.

   Stage settings were made for stories. One side was out
out of a large cardboard box. The stage setting was made.
The characters were made from pipe stem cleaners, using a
piece of cloth, stuffed with cotton, for the head. The
features were drawn on the face and wool was used for hair.
The children also sewed the costumes for the figures. Some-
times bottles were used for the bases of the characters.
Indians were made by peeling apples and allowing them to dry.
The nose was shaped and features were drawn. The squaws
were made by fastening the apple to a bottle. Twigs were
used for the body of the chiefs. A unit on home life or
shelter included the study of the building materials used,
the kinds of homes and the constructing of a doll house.

The dramatization of stories aided in speech work, as
well as motivating reading.

In connection with nature study, the children made
leaf prints. These were made by pressing a green leaf on
a stamping pad and then transferring it to a sheet of paper.
The leaf was removed and a print of the leaf was left on the
paper. A mimeographed lesson about the tree or leaf was
given to each child. The questions on the sheet were an-
swered and directions were followed in drawing and coloring
the tree. The children made scrap books of their hobbies.
Sometimes several worked together on one book. Some made
books by matching the picture and the word or phrase. A
very interesting book was made by a child. He pictured the
verbs and nouns by stick men and objects.

\[ \text{sit} \quad \text{hop} \quad \text{run} \]

\[ \text{dog} \quad \text{cup} \quad \text{girl} \]

He then went on with stories which he illustrated;

1.

We came to school today.
We read stories
We read about a rabbit.
The rabbit was called Jerry.

2.

George brought his pet rabbit.
It is black and white.
It eats leaves.
It drinks water.

Nursery rhymes were typed and given to the children with directions, e.g.

Baa, baa, black sheep,
Have you any wool?
Yes, sir, I have
Eight bags full;
Two for my master,
Three for my dame;
How many for the little boy
That lives in the lane?

1. Draw what is left for the boy.
2. How many are there altogether?
3. Draw where the boy lives.

Humpty Dumpty sat on a wall,
Had nine eggs and let three fall;
He could not pick them up again.
How many eggs had Humpty then?

1. Draw the wall. Color it brown. Draw the number of eggs on the wall.

Three little kittens lost their mittens
And they began to cry:
How many mittens did they lose?
To find out you must try.

1. What did the kittens lose? Draw them.

The teacher wrote her notices and assignments on the board.

Notices such as the following are written on the board:

Morning:
We come to school at 9:00 A.M.
We are dismissed at 10:40 A.M. for recess.
We come back to study at 11:00 A.M.
We eat at 12:00.

Afternoon:
We come to class at 1:30 P.M.
We are dismissed at 3:00 P.M.

Monday:
We have music today.
Who is coming today?
Is it Miss L?
Is it Miss M?
The children enjoyed making riddles. The following is an example:

I am little.
I can fly.
I make honey.
I buzz.
Who am I? Draw me.

The children kept a daily weather report. They drew a large calendar. Symbols stood for each weather condition. A green umbrella meant rain and was pasted on the calendar the rainy day. Birthdays were recorded by pasting a paper candle on that date, with the child's name written under it. At the close of the month the daily newspapers for the month and the calendar were fastened together and placed on the reading table.

When the calendar was first introduced, the children learned the names of the months and the days of the week.

Questions were asked as follows:

1. What day of the week is it?
2. What month is it?
3. What year is it?
4. Find the number for today.
5. Find the first Sunday in the month, etc.

Time was also introduced at this time. The children made clocks from paper plates, putting movable hands on them and drawing the numerals on the faces. They used two pine cones, tied on a cord for weights. They drew a design around the clock. The children decided to make a clock store.

They had listened to the Victrola record, "The Clock Store." They also learned a song about the "School Room Clock" in
the Churchill Song Book. They made various clocks from boxes, coffee cans, and so on. They borrowed some clocks that were interesting.

Puppet plays motivated the reading. The stage was built from a wooden box. The puppet heads were made from paper mâché and sometimes dolls or toys were used. The puppets were propelled by strings or heavy wires.

When a circus project was suggested, the children found it necessary to read about circuses and animals. They made animal costumes from wrapping paper and paper bags, which they painted. The four-footed animals required two children for the body.

Various types of silent reading were used. The children were asked to list the action of the characters. These were done by matching.

e.g.:

```
The crow

<table>
<thead>
<tr>
<th>saw a piece of cheese</th>
</tr>
</thead>
<tbody>
<tr>
<td>flew to a tree</td>
</tr>
<tr>
<td>began to caw</td>
</tr>
</tbody>
</table>

The fox

<table>
<thead>
<tr>
<th>walked in the meadow</th>
</tr>
</thead>
<tbody>
<tr>
<td>flattered the crow</td>
</tr>
<tr>
<td>ran away with the cheese</td>
</tr>
</tbody>
</table>
```

Directions were given which the child followed.

e.g. Draw a car.
Color it blue.
Color the wheels black.
Draw a man in the car.

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Sentences were given the children. They marked them right or wrong.

e.g. A boy can't run as fast as a fox.

A bowl of cereal is good for a child to eat.

The keeping of daily health records involved silent reading, as well as helping the child form health habits.

The children made stories and wrote out directions for each other. This is an example:

A little girl was crying.
"Why are you crying?" asked a woman.
"I lost some money to buy some milk with," the girl said. Put an X on what the girl lost.

Other reading activities used were:

1. Putting cut-up stories together.
2. Dramatizing rhymes.
3. Matching Mother Goose rhymes with illustrations.
4. Using paragraph cards to answer specific questions on cards.
5. Rearranging the lines of a rhyme.
6. Finding how many times a given phrase is used in a cumulative story.
7. Learning to read signs.
8. Noting similarities and differences in words.
10. Learning to read the titles of library books.
11. Selecting words that mean the same or opposite.
The chart shown below was used to show the children in the second grade what kind of work they were doing. A piece of oak-tag was used. The numbers at the left corresponded to the number of the comprehension exercises. Those at the bottom corresponded to the number of words read silently per minute. The score of one hundred words was set for the rate and seven for comprehension.

The pupil's name was written on a square of paper. Each square was pinned on the chart at the point which indicated both the child's rate and comprehension. The position of the names was changed after each timed reading lesson.

<table>
<thead>
<tr>
<th>Score</th>
<th>Danger</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Reading</td>
<td>Hospital</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1 50</td>
<td>60 70  80 90</td>
</tr>
<tr>
<td></td>
<td>100 110 120 130 140 150 160 170 180 190</td>
<td></td>
</tr>
</tbody>
</table>

Diagnostic Reading Graph
The writer believes that the favorable conditions under which the children at Boulder, Montana, work, is responsible largely for the progress that was made in reading.

The living conditions of the subnormals are better than those of many public school children. The children are under a nurse's supervision. They are seldom absent from school.

The food is wholesome. There is a well-balanced diet. The sleeping quarters are very hygienic and there are clean, airy play halls. The child is under no emotional strain. He is working with a group where he can achieve success.

The daily program followed was a ten minute period in which the room sang a few songs, discussed the news events of the day and printed the daily newspaper. The period from 9:10 A.M. to 10:10 was used for silent and oral reading. The next half hour was an activity period. At 10:40 the children were dismissed for a twenty minute intermission. Reading lessons were conducted from eleven to twelve.

Summary:

Mentally defective children must be kept constantly interested and busy. Everything must be presented as play. There must always be motivation for the reading lesson. The writer believes that a low I. Q. does not always necessitate poor qualitative and quantitative achievement in reading.
If a subnormal has physical defects, such as eyes or ears, cared for, and has the proper food, sleep and good hygienic habits, he can read if the reading lesson is made interesting.

A few of the most important changes in teaching reading are the greatly increased scope of the activities of the reading period; the selection of the reading materials that are in harmony with the interests of the children; the radical improvement of teaching methods; the greatly increased amount of reading material and the provision for specific reading guidance.
CHAPTER IX
CASE STUDIES.

In order that the teacher may do her best in helping the child who is mentally defective, she must know something of the child's past environment and experience. He may have habits, that it would be well for her to know. He may have a physical defect, that she could help correct, if she were informed. A simple record was kept, such as the following by the writer.

TEACHER'S RECORD

1. Nervousness
2. Noisy
3. Mischievous
4. Can he see well?
5. Can he hear well?
6. Unfortunate habits
7. In what way is he most troublesome or faulty?

Underline:
Cheerful, morose, quarrelsome, active, obstinate, sensitive, moody, good-tempered, excitable, changeable, sly, resentful, lazy, slovenly, neat, proud, silent, talkative, obedient, destructive, laugh or cry without cause, mouth open, emotional, lack of feeling, lack of self-control, easily managed, fearful, humorous, selfish, generous, does he help
care for other children, polite, rude.

Reads_______  Writes_______  Spells_______
Draws_______  Sings_______
Does he learn new work easily?_________
Does he remember easily?_________
What does he imitate?_________
Is he easily confused?_________

Home Record

1. Heredity_______
2. Development_______
3. Medical History_______
4. Environment and personal history_______
5. Capacities_______
6. Habits_______
7. Intelligence_______
8. Physical Defects_______
Case Number I.

Alice was thirteen years old. She had been in school seven years before she came to us. She had repeated each grade a second time and because of the ruling in the school system, she finally reached the fourth grade but with no background for the work. She was a well-behaved child. By her conduct, you knew she came from a good home. She adapted herself easily and the children liked her. She needed careful supervision or she would become careless about her personal appearance. Her parents provided nice clothes for her but she was not especially interested in her appearance. She was of normal height and almost normal in weight. Alice's parents had been able to give her whatever she desired. They had resorted to private tutoring but they had not realized how poor she really was in school work because of her promotion every second year. It was not until a younger sister of ten also was promoted to the fourth grade, that the parents began to notice any great defect. The child refused to go to school. She would resort to imaginary illnesses to stay home.

Alice has the mental age of a six year old child. Her parents believe that her affliction is due to scarlet fever which she had the year before she started school. She seemed a normal healthy child before her illness. There is no known mental defectiveness in the family on either side. The
girl was placed with a reading group who were getting a good start in beginning reading. Some of these children were almost as large as she. Manila covers over the books prevented the children from knowing that they were reading first grade books. Alice was delighted in her modest success in reading and took a great deal of interest in the work. It was the first time anyone had ever told her she could read nicely when she tried.

Alice has no physical defects and she will be able to read fairly well. With the proper training and attention, she should become more careful of her personal appearance. A little praise helps the child in trying.

Case II

Mary is a little girl who is chronologically ten years old, but physically and mentally she will always remain three. The child is of Mongolian type. Her features are becoming coarse. Her skin is rough and not rosy looking like that of a normal child. Her eyes are small and dull. She has all the characteristics of the Mongol type. She was brought to the institution three years before. The matron and girls' supervisor have paid a great deal of attention to her. She is shown off to visitors. The supervisor asks her "Whose little girl are you?" She replies, "Mother W's. little girl." The supervisor says "What will I do when you grow up?" The child replies "You'll have to put a stone on
my head so I won't grow up." The child is asked her name, age and where she is from. She can speak no coherent sentences unless coached. In the kindergarten she knows the colors, she can do a few simple tasks but tires very easily. She usually answers questions in monosyllables. She can recite a number of rhymes and sing a few simple songs. She does not realize that she is tiny and is completely happy having a great deal of attention and many new dresses. She is quite vain. She also insists that her hair must be curled.

She is the last child of a large family. All the other children are normal and much older than she. The family is very poor and felt that this extra child was an additional burden to them, since she was not capable of working. The food conditions as well as housing conditions are extremely poor.

Mary is mentally three years. Her physical health is as good as can be expected of a child of her type. She is incapable of performing any duties at the institution.

The child, undoubtedly, will always live at the institution; however, a visitor said he believed that after she was older some show company probably would take her into a show. This, he said, was done occasionally. The parents are very much in need of money and probably would consent to such an arrangement.
Case III

William came to the institution at the age of seven, from an orphanage. He had been incorrigible. We were told that he had a low I. Q. but when tested with the Binet test he showed an I. Q. of 92.

He was a nice appearing child and was bright enough to resent being sent to the institution. He craved attention and affection.

Nothing was known of his parents but he was an illegitimate child. He had been well cared for at the orphanage and was physically well. He had a disagreeable disposition and could outwit the slower children,—making them afraid to associate with him.

With William's intelligence he should do fairly good work in reading and other school subjects. He improved very rapidly during the short time he has been in the institution. He began to take an interest in reading and various activities.

It seems pathetic that a child of his intelligence should be placed in an institution, since it will stigmatize him. However, he is now far happier than he was in his former home. Probably he will be dismissed from the institution when he is of age and therefore it seems necessary that he be taught some occupation that he can follow when he becomes a young man.
Case IV

June was ten years old. She had attended public school for three years but had never completed the first grade work. She was deaf when she came to the institution and probably she was becoming deaf when she started school. She was also mentally retarded, and undoubtedly, the teacher did not realize that she also had a physical defect. She was an extremely noisy child because she heard only loud sounds. She was always happy and contented.

June had six brothers and sisters. The father did not appear bright and one of the children who had just started to the public schools was having difficulty in learning. The child's mental defect was in all probability, inherited. The family was poor. They lived in a little hut on a ranch in the eastern part of the state. The environment was all so new and different to the child, that between awe and homesickness, it took several weeks for her to become adjusted. The child had been undernourished. She was small for her age.

June has the mental age of a six year old but due to her deafness the Binet test does not really test her mentality. Her reading is good. She had mastered phonics, evidently before she became deaf, and she uses them on non-phonetic words, as well as the phonetic and the teacher must through speaking very loudly and showing pictures or
illustrations, show the child what the word is. It seems that a child whose hearing is so deficient should be placed in the school for the deaf and the blind. The time will come when she will be completely deaf and she will need to know lip reading then.

Case V

John was twelve years old. He had been at the institution since he was eight. He had completed the first grade in the public schools. His parents were well-to-do but did not live together. The child's home condition had not been too pleasant.

John had always been a timid child and did not seem bright. There was no defectiveness in either parents' family as far as they knew. The child had fallen against a hot kitchen stove and was severely burned on his neck, when he was seven. After that time, he had had epileptic fits.

John was a high grade moron. He was doing satisfactory third grade work in the State Training School. He liked manual training and weaving. During the past year John had his spells very frequently. An intelligence test revealed that his mentality was much lower than two years before, when a similar test had been given.

The child cannot be trusted alone because of epilepsy and he will probably not be able to continue with his school work much longer. He will continue with manual training and weaving because he is extremely happy while he
is doing either.

Case VI.

Vernon was ten years old. By looking at the child, one would never know that he was mentally defective. He appears bright and is very mischievous.

Vernon has two sisters in the institution. They are both good institution works and are nice appearing.

The three children were admitted from the State Orphanage. When the father died the children were sent to Twin Bridges. The mother married again. She has two small children that appear mentally defective.

Vernon completed the work in the first grade after having been in the group for two years. He also attended the school at Twin Bridges and repeated the first grade there.

The child has an I.Q. of 65. He is inattentive. He is not interested in school work and he is anxious to be taken out of school and to do routine work in one of the cottages. Vernon likes manual training, basketry and weaving and he has done good work in these departments.

He will remain in school a few years longer.
Chapter X
A LIBRARY BOOK LIST

The following books are recommended for the first grade. The second grade children enjoy reading the first grade books also.

1. A B C for Every Day - Helen Sewell, Macmillan Co.
3. Adventures of a Brownie - Mulock, Lippincott Co.
5. Ameliar Anne and the Green Umbrella - Heward
8. Babies A - B - C and 1 - 2 - 3 Book; Gabriel & Sons
10. Billy's Farm Friends; P. F. Volland Co.
13. Burgess Bird Book; Little Brown Co.
15. Charlie and His Kitten Topsy - Hill and Maxwell, Macmillan
16. Chicken World - Smith, Putman's Sons
17. Children at Play in Many Lands - J. Roe
18. Children's Corner, Le Mair
19. Child's Garden of Verses - Stevenson, Scribner & Sons
20. Child's Health Alphabet - Peterson, Macmillan Co.
21. *Clean Peter and Children of Grubbylia*; Adleborg, Macmillan
28. *Everyday Doings at Home* - Serl, Rand McNally
30. *Fairy Helpers* - Rittenhouse, Baker-Heath
32. *Farmer in the Dell* - Hader, Heath
33. *Fifty Flags and Other Stories* - Baker, Heath
34. *Fireman, The* - Heath
35. *Four Footed Friends* - Samuel Gabriel and Sons
36. *Four Little Rabbits* - Baker, Heath
41. *Good Little Children from A to Z* - Heath Co.
42. *Good Time Book* - LaRue, Heath and Co.
44. *Granny Goose* - Ras, Rand & McNally Co.
45. *Head for Happy* - Sewel, Heath Co.
47. *I Live in the City* - Tibbet, Heath & Co.
49. Johnny and Jenny Rabbit - Scrib, Rand-McNally Co.
50. Kitten Kat - Dearborn, Macmillan
51. Little Black Sambo - Bannerman, Stokes & Co.
52. Little Bim the Circus Boy - Muter, P. F. Volland Co.
54. Little Chick that Would Not Go to Bed - Diehl, Rand-McNally
55. Little Jack Rabbit - Dussauze, Macmillan Co.
56. Little Wooden Doll - Bianco, Macmillan Co.
57. Little Wooden Farmer - Dalghesh, Macmillan Co.
58. Meddlesome Mouse - Neville, Macmillan Co.
59. Mother Goose's Nursery Rhymes - Walter, Macmillan Co.
60. Picture Tales from the Russian - Carrick, Stokes Co.
61. Poppy Seed Cakes - Clark, Doubleday Co.
62. Once There Was a Crocodile - Heath & Co.
63. Our Pets - Nida, Heath & Co.
64. Painted Pig, The; - Mrs. Morrow, Rand-McNally Co.
65. Peep into Fairyland - Rittenhouse, Heath & Co.
66. Penny Whistle - Berry, MacMillan
68. Peter Patter Book; - Jackson, Rand McNally Co.
70. Playmates - Weiss, Heath & Co.
71. Police Man - - Macmillan Co.
72. Polly Flinders - - Rand McNally Co.
73. Postman - - MacMillan Co.
74. Raggedy Andy - Gruelle - Volland Co.
75. Raggedy Ann - Gruelle; Volland Co.
76. Ring-A-Round - Harrington; MacMillan
77. Rhymes for Jack and Jill - Whitney; Heath & Co.
78. Rhymes, Jingles and Fables - Eliot; Heath & Co.
79. Sing Song - Rosetli; MacMillian Co.
80. Spin Top Spin - Eisgruber; MacMillan Co.
82. Take of Jemina Puddle Duck - Potter; F. Warne & Co.
83. Tale of Mrs. Tittlemouse - - - F. Warne & Co.
84. Tale of Peter Rabbit - Potter; F. Warne & Co.
85. Tale of Squirrel Nutkin - Potter; F. Warne & Co.
86. Tigers and Things - Kaufman; MacMillian Co.
87. Told Under the Green Umbrella; MacMillan Co.
88. Under the Story Tree - LaRue; Volland
89. Velveteen Rabbit - Bianco; Rand-McNally Co.
90. Winnie the Pooh - Milne; MacMillan Co.
91. White Kitten and the Blue Plate - Hogan; MacMillan Co.

**Library Books for Grade Two**

1. A Child's Robinson Crusoe - Nida; Beckley Cardy Co.
2. Adventures of a Brownie - Craik; Rand McNally Co.
3. Adventures of Reddy Fox - Burgess; Grossett Co.
4. Ameliaranne Keeps Shop - Heward; McKay Co., Philadelphia
5. An Airplane Ride - Read; Scribner & Sons
6. An Engine's Story - Read; Scribner & Sons
8. Arabella and Araminta Stories - Smith; MacMillan Co.
9. At the Open Door - Robinson; Silver Burdett Co.
10. A Week With Andy - Pitman & Dearborn; Ginn & Co.
11. Baby Animals on the Farm - Agner & Cable; World Book Co.
14. Billy's Letter - Read; Scribner
15. Bluebird for Children - Perkins; Silver Burdett Co.
17. Bobby and Betty with the Workers - Dopp; Scribner
18. Bookhouse for Children; Chicago, Ill.
22. Brownies, Their Book - Cox; Century Co.
23. Bunny Rabbit's Diary - Blaisdell; Little Brown Co.
24. Buster Bear - Gurgess; Little Brown Co.
25. Busy Little Brownies - Moore; Whitman Co., N. Y.
26. Busy Brownies at Work - Davidson-Bryce; Newson Co., N.Y.
27. By the Roadside - Troxell-Row, Peterson & Co.
28. Cat-tails and Other Rails; - Howiston; Flanagan Co.
30. Charlie and his Puppy Bingo - Hill; MacMillan Co.
31. Cherry Tree Children - Blaisdell; Little Brown Co.
32. Circus Fun - Smart; Sanborn & Co.
33. Cock, The Mouse and the Little Red Hen; - Lefevre; Macrae Smith Co.
34. Cosy Time Tales - Joan; Nelson & Sons, Milwaukee
35. Cubby Bear - Ellengwood; Ginn & Co.
36. Danny Meadow Mouse - Burgess; Little Brown Co.
37. Diggers and Builders - Lent; MacMillan Co.
38. Dutch Twins - Perkins; Houghton Mifflin Co.
39. Eskimo Stories - Smith; Rand McNally Co.
40. Eskimo Twins - Perkins; Houghton Mifflin Co.
41. Everyday Stories - Ayer; Macmillan Co.
42. Fables and Nursery Tales - Norton; D. C. Heath Co.
43. Fairies of the Hills - Moore; Flanagan Co.
44. Field and Tree - Meyer; Little Brown Co.
45. First Lessons in Nature Study - Patch; MacMillan Co.
46. Fishing and Hunting - Mott & Dutton; American Book Co.
47. Five Little Friends - Adams; D. C. Heath
48. Fleetfoot, the Cave Boy - Nida; Laidlan
49. Folklore from Foreign Lands - Bryce; Newson Co.
50. Friendly Fairies - Gruelle; D. C. Heath Co.
51. Gay Kitchen - Sherman; Little Brown Co.
52. Gingerbread Boy - Smith; Albert Whitman, Chicago
54. Gordon and his Friends - Bryant; Houghton Mifflin Co.
55. Grandfather's Farm - Read; Scribner
56. Grimm's Fairy Tales; Winston Co.
57. Happy Jack - Burgess; Little Brown Co.
58. Happy Manikin in Manners Town - Smith; Whitman Co., Chicago
59. History Stories for Primary Grades - Wayland; MacMillan
60. How and Where We Live - Allen; Ginn & Co.
61. How the Indians Lived - Dearborn; Ginn & Co.
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<td>Jip and the Fireman</td>
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86. Little Jeane of France - Brandies; Flanagan Co.
87. Little Red Rooster - Deihl; Whitman Co.
88. Little Rhymes for Little Readers - Seegmiller; Rand McNally
89. Little Philippi of Belgium - Grandies; Flanagan Co.
90. Little Swiss Wood Carver - Brandies; Flanagan Co.
91. Lost Monkey - Rice; Newson Co.
92. Magic Boat - Wright; Ginn & Co.
93. Millions of Cats - Wanda Gag; Bagshaw Co.
94. Mr. Blue Peacock - Deihl; Whitman & Co.
95. Mr. Brown's Grocery - Read; Little Brown Co.
96. Our Japanese Cousins - Wade; Page Co., Boston
97. Pella's New Suit - Beskow; Dreyers, Stavanger, Norway
98. Peter and Polly - Lucia; American Book Co.
100. Polly and Dolly - Blaisdell; Little Brown Co.
102. Roly-Poly Pudding - Porter; Warne, N.Y.
103. Stories of Animal Life - Boss; D. C. Heath Co.
104. Story of Two Kittens - Simmerman; Flanagan Co.
105. Stories, Old and New - Sheriff; Ginn & Co.
106. Taming the Animals - Nida; Laidlaw
107. Tale of Two Terriers - Cril and Fly; D. C. Heath Co.
108. Tatters - McElry; American Book Co.
110. Timothy Crunchit - Ball; Laidlaw Co.
111. Trailing Our Animal Friends - Nida; D. C. Heath Co.
112. Toy Town - Blaisdell; Little Brown & Co.
113. Under the Story Tree - LaRue; MacMillan Co.

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The Addresses of the Publishing Companies

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Chapter 17

Summary and Conclusions

Summary

A research was made in the Montana State Training School at Boulder, Montana, during the years 1930-1931, by the author, to find a procedure in the teaching of reading, in which the subnormal children would have created in them a desire to read, to be able to read comprehendingly, with the proper degree of rapidity and with clear enunciation.

The first tests were given to the entrants of the State Training School. The individual whose intelligence was so low that he was incapable of receiving any benefit from the regular class instruction was eliminated from the training school routine. Any placement in the classroom was not final.

The writer watched the group she worked with daily, both with regard to work and sound adjustment.

The child the had had less than first grade training in public schools of the state was placed in the kindergarten. This was a sense-developing department. Oral expression was stressed since it developed a larger vocabulary for reading in the first grade.

After the kindergarten curriculum had been completed, the group was placed in the first grade.

The group of children that the author experimented with in 1931-1932 was the one she had had in the first grade the year previous, with the exception of one child who came from an orphanage in the state.

The Haggerty Reading Examination, 1931, was given to
the sixteen children in the experimental group on October 7, 1931. The class averaged a score of seven and four-tenths. This gave a grade average of one A.

The individuals' difficulties and peculiarities were followed closely by the writer. Each pupil was given attention where he most needed help. He was shown where he could take improvements or readjustments. The elements of weakness were closely diagnosed.

From the very beginning the pupil was made to understand that reading was not mere word-calling but a thought-getting process. He soon learned that he could derive much pleasure and enjoyment from the ability to read.

The child was required to have reading readiness before he was admitted to the reading classes. This was developed in the kindergarten.

Speech defects were with certain cases the feasible-minded. About thirty percent of the State Training school group had some speech disorder, stuttering was the most prevalent. Then the physical health of the subject in general, the speech disability diminished. Various methods were tried in overcoming the difficulties.

In teaching these deficient children, it was absolutely necessary to introduce the key element, sight and sound, appliances, and spelling charts were used always. The pupils were kept busy and interest constantly. Rest was never allowed to lag.

Individual charts and graphs of each child's achievement
were kept posted. They proved a drive in him and a determination to beat his own record each day.

The greatly increased scope of the activities of the reading period, the selection and the amount of reading materials that were in harmony with the interests of the children and the improvement in the reading methods were the most important factors in teaching the subject.

On May 15, 1922, the author gave the digger reading examination, Time 2, to the same group of children. The average score was twenty-one and the average grade was 85.8.

This showed a year's progress for the children in their reading, which is no more than normal public school children are asked to make in a year's time.

Conclusions

1. Backward children learn to read provided a favorable condition is presented.

2. The most important achievements of the special class are the attainment of attitudes, habits of industry, and the habits of right living.

3. It is not necessary to use unique methods in training such pupils. However, the newer techniques in teaching reading are far more efficient.
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